

Source: SA5 (Telecom Management)

Title: 5 Rel-5 CR 32.615/25/35/45/55 (Configuration Management; Bulk CM/ Generic/ Core/ UTRAN/ GERAN network resources IRP: Bulk CM XML file format definition): Correction of namespace URIs

Document for: Approval

Agenda Item: 7.5.3

Doc-1st-	Spec	CR	R	Ph	Subject	Ca	Ver	Doc-2nd-	Workitem	Relation
SP-030287	32.615	007	-	Rel-5	Correction of Bulk CM configuration data file XML schema namespace URIs	F	5.0.1	S5-036543	OAM-NIM	siblings
SP-030287	32.625	001	-	Rel-5	Correction of Generic NRM XML schema namespace URIs	F	5.0.0	S5-036539	OAM-NIM	siblings
SP-030287	32.635	001	-	Rel-5	Correction of Core NRM XML schema namespace URIs	F	5.0.0	S5-036540	OAM-NIM	siblings
SP-030287	32.645	002	-	Rel-5	Correction of UTRAN NRM XML schema namespace URIs	F	5.0.0	S5-036541	OAM-NIM	siblings
SP-030287	32.655	002	-	Rel-5	Correction of GERAN NRM XML schema namespace URIs	F	5.0.0	S5-036542	OAM-NIM	siblings

CHANGE REQUEST

⌘ **32.615 CR 007** ⌘ rev - ⌘ Current version: **5.0.1** ⌘

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:	⌘ Correction of Bulk CM configuration data file XML schema namespace URIs		
Source:	⌘ S5 Nortel Networks (bonneau@nortelnetworks.com)		
Work item code:	⌘ OAM-NIM	Date:	⌘ 23/05/2003
Category:	⌘ F	Release:	⌘ Rel-5
	Use <u>one</u> 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 <u>one</u> 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:	⌘ Bulk CM configuration data file XML schema namespace URIs are incorrect.		
Summary of change:	⌘ <ul style="list-style-type: none"> • In Bulk CM configuration data file base XML schema: <ul style="list-style-type: none"> • Evolution of the version part of Bulk CM configuration data file base XML schema namespace URI definition • Correction of references to Generic NRM XML schema namespace URI • In examples for Bulk CM configuration data XML files and for Bulk CM configuration data file vendor-specific XML schema: <ul style="list-style-type: none"> • Correction of references to Bulk CM configuration data file base XML schema namespace URI • Correction of references to Generic NRM XML schema namespace URI • Correction of references to UTRAN NRM XML schema namespace URI 		
Consequences if not approved:	⌘ Implementation of Rel-5 Bulk CM configuration data XML files would be impossible.		

Clauses affected:	⌘ 4.1, 4.3A.2, 4.4, 4.5, annex A, annex C										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">N</td> </tr> <tr> <td style="width: 20px;"><input type="checkbox"/></td> <td style="width: 20px;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="width: 20px;"><input type="checkbox"/></td> <td style="width: 20px;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="width: 20px;"><input checked="" type="checkbox"/></td> <td style="width: 20px;"><input type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	⌘ Other core specifications ⌘ Test specifications ⌘ O&M Specifications	⌘ Rel-5 32.625, 32.635, 32.645, 32.655
Y	N										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<input checked="" type="checkbox"/>	<input type="checkbox"/>										
Other comments:	⌘ CR associated with sibling CRs S5-036539, S5-036540, S5-036541, S5-036542. The XML schema file "configData.xsd" reflects the changes from this CR (only).										

Change in Subclause 4.1

4.1 Global structure

The content of a configuration data XML file is the succession of:

- the standard XML declaration with specification of the version of XML and of the character encoding being used (see [2]);
- a `bulkCmConfigDataFile` XML element; this is the root XML element of configuration data XML files.

The definition of the allowed character encoding(s) is outside the scope of this document.

As defined by the following extract of XML schema `configData.xsd` (see Annex A):

```

<element name="bulkCmConfigDataFile">
  <complexType>
    <sequence>
      <element name="fileHeader">
[...]
      </element>
      <element name="configData" maxOccurs="unbounded">
[...]
      </element>
      <element name="fileFooter">
[...]
      </element>
    </sequence>
  </complexType>
</element>

```

the XML content of a `bulkCmConfigDataFile` XML element is the succession of:

- a `fileHeader` XML element (see subclause 4.2);
- one or several `configData` XML elements (see subclause 4.3);
- a `fileFooter` XML element (see subclause 4.2).

XML elements `fileHeader` and `fileFooter` are empty XML elements (see subclause 4.2).

The `bulkCmConfigDataFile` XML element shall also have all the XML attribute specifications that declare the XML namespaces (see [6]) used in the XML file.

The following XML namespaces are potentially used in configuration data XML files:

- the default XML namespace is associated with the configuration data files base XML schema `configData.xsd` (see Annex A);
- for each NRM-specific XML schema, a specific XML namespace prefix is defined for the associated XML namespace (see subclause 4.3A.1);
- XML namespaces prefixes starting with `vs`, e.g. `vsRH011`, are reserved for the XML namespaces associated with the vendor-specific XML schemas (see clause 4.5).

Each `configData` XML element (see subclause 4.3) carries:

- NRM instances with or without their NRM attribute values in a NRM naming tree organized structure together with `modifier` XML attribute specification (see subclause 4.4);
- possibly vendor-specific data (see subclause 4.5).

A `configData` XML element can carry an entire tree of NRM instances with their NRM attribute values and the related vendor-specific data or any subset of it.

The following is an example of a configuration data XML file, without presentation of the XML attribute specifications and XML content of fileHeader, configData and fileFooter XML elements (replaced by [...]; see subclauses 4.2, 4.3, 4.4 and 4.5):

```
<?xml version="1.0" encoding="UTF-8"?>
<bulkCmConfigDataFile
  xmlns=
"http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32615-
500510.zip#configData"
[...]
```

>

```
  <fileHeader [...]/>
  <configData [...]>
[...]
```

</configData>

```
  <configData [...]>
[...]
```

</configData>

```
  <fileFooter [...]/>
</bulkCmConfigDataFile>
```

End of Change in Subclause 4.1

Change in Subclause 4.3A.2

4.3A.2 Generic mapping rules

NRM-specific XML element types are generically defined under the following mapping rules:

- to each NRM class corresponds a specific type of XML element having the following characteristics:
 - its name is the name of the NRM class;
 - it derives by extension (see [3], [4] and [5]) the `NrmClassXmlType` XML complex type defined in the XML schema `genericNrm.xsd` (see [11]);
 - it has the following XML attribute specifications, inherited from `NrmClassXmlType` XML complex type:
 - an `id` XML attribute specification; this attribute specification carries the attribute value part of the RDN of the NRM instance carried by the XML element, i.e. the value of the naming attribute of this NRM instance;
 - an optional `modifier` XML attribute specification (see subclause 4.4);
 - and its XML content is the succession of:
 - an optional `attributes` XML element whose XML content is the succession of:
 - zero or more specific XML elements (see below) corresponding to attributes of the NRM class, each occurring not more than once;
 - zero or more similar specific XML elements corresponding to direct subordinate NRM classes of the NRM class to which the current XML element corresponds;
- to each NRM attribute of each NRM class, except for the following NRM attributes:
 - the naming NRM attribute of each NRM class, whose value is already carried by the `id` XML attribute specification of the specific XML element corresponding to the NRM class;
 - the conditional `dnPrefix` NRM attribute of `SubNetwork`, `MeContext` and `ManagedElement` NRM classes (see [8]), whose value is already carried by the `dnPrefix` XML attribute specification of the `configData` XML element;

corresponds a specific type of XML element having the following characteristics:

- its name is constructed from the name of the NRM attribute by removing any contained dash character;
- and it has an XML content; this XML content carries the value of the NRM attribute.

For example for the SubNetwork NRM class (see [8]), the corresponding extract of XML schema genericNrm.xsd (see [11]) is the following:

```
<element name="SubNetwork">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" minOccurs="0"/>
                <element name="userDefinedNetworkType" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="xn:SubNetwork"/>
            <element ref="xn:ManagedElement"/>
            <element ref="xn:MeContext"/>
            <element ref="xn:ManagementNode"/>
            <element ref="xn:IRPAgent"/>
            <element ref="un:ExternalUtranCell"/>
            <element ref="gn:ExternalGsmCell"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>
```

supported by the following extract of XML schema genericNrm.xsd (see [11]):

```
<complexType name="NrmClassXmlType" abstract="true">
  <attribute name="id" type="string" use="required"/>
  <attribute name="modifier" use="optional">
[...]
```

Exceptions to the generic mapping rules for the definition of NRM-specific XML element types are listed by the following table:

Table 3: Generic mapping rule exceptions

NRM classes / attributes	NRM 3GPP TS no.	Exception description references
vsData attribute of VsDataContainer class	32.622 [8]	subclause 4.5 of the present document and annex A of 3GPP TS 32.625 [11]

The following is an example of a configData XML element with regard to NRM-specific XML elements (in **bold**) in a configuration data XML file:

```
<?xml version="1.0" encoding="UTF-8"?>
<bulkCmConfigDataFile
  xmlns=
"http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32615-
```

```

| 500510.zip#configData"
  xmlns:xn=
  "http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32625-
| 500510.zip#genericNrm"
[... ]
>
[... ]
  <configData dnPrefix="DC=a1.companyNN.com">
    <xn:SubNetwork id="1">
      <xn:attributes>
        <xn:userLabel>Paris SN1</xn:userLabel>
        <xn:userDefinedNetworkType>UMTS</xn:userDefinedNetworkType>
      </xn:attributes>
      <xn:ManagementNode id="1">
        <xn:attributes>
          <xn:userLabel>Paris MN1</xn:userLabel>
          <xn:vendorName>Company NN</xn:vendorName>
          <xn:userDefinedState>commercial</xn:userDefinedState>
          <xn:locationName>Montparnasse</xn:locationName>
        </xn:attributes>
      </xn:ManagementNode>
      <xn:ManagedElement id="1">
        <xn:attributes>
          <xn:managedElementType>RNC</xn:managedElementType>
          <xn:userLabel>Paris RN1</xn:userLabel>
          <xn:vendorName>Company NN</xn:vendorName>
          <xn:userDefinedState>commercial</xn:userDefinedState>
          <xn:locationName>Champ de Mars</xn:locationName>
        </xn:attributes>
      </xn:ManagedElement>
      <xn:ManagedElement id="2">
        <xn:attributes>
          <xn:managedElementType>RNC</xn:managedElementType>
          <xn:userLabel>Paris RN2</xn:userLabel>
          <xn:vendorName>Company NN</xn:vendorName>
          <xn:userDefinedState>commercial</xn:userDefinedState>
          <xn:locationName>Concorde</xn:locationName>
        </xn:attributes>
      </xn:ManagedElement>
    </xn:SubNetwork>
  </configData>
[... ]
</bulkCmConfigDataFile>

```

End of Change in Subclause 4.3A.2

Change in Subclause 4.4

4.4 XML attribute specification modifier

As defined by the following extract of XML schema genericNrm.xsd (see [11]):

```

<attribute name="modifier" use="optional">
  <simpleType>
    <restriction base="string">
      <enumeration value="create"/>
      <enumeration value="delete"/>
      <enumeration value="update"/>
    </restriction>
  </simpleType>
</attribute>

```

```
</simpleType>
</attribute>
```

the value of the optional `modifier` XML attribute specification of the specific XML elements corresponding to the classes of the NRM is one of the following: `create`, `delete`, or `update`.

The semantic carried by a `modifier` XML attribute specification applies only to the NRM instance corresponding to the containing XML element and not to any explicit or implicit subordinate NRM instances of this NRM instance.

The following rules apply for the `modifier` XML attribute specification:

- in upload XML configuration files, no `modifier` XML attribute specification should be present; on the contrary those are to be considered as meaningless and shall be ignored;
- in download XML configuration files:
 - if an XML element carrying an NRM instance has a `modifier` XML attribute specification of value `create`, then all directly or indirectly contained XML element carrying NRM instances, if any, shall also have a `modifier` XML attribute specification of value `create`;
 - if an XML element carrying an NRM instance has a `modifier` XML attribute specification of value `delete`, then all directly or indirectly contained XML element carrying NRM instances, if any, shall also have a `modifier` XML attribute specification of value `delete`;
 - if an XML element carrying an NRM instance has a `modifier` XML attribute specification of value `update`, then all directly contained XML element carrying NRM instances, if any, may also have a `modifier` XML attribute specification, this one being of either value `create`, `delete`, or `update`;
 - if an XML element carrying an NRM instance has no `modifier` XML attribute specification or a `modifier` XML attribute specification of value `delete`, then it shall not directly contain an `attributes` XML element.

A tree of XML elements corresponding to a tree of NRM instances with all XML elements having a `modifier` XML attribute specification of value `create` is considered to be in accordance with the following rule from Bulk CM IRP IS 3GPP TS 32.612 [1]:

"When part or a whole NRM subtree is to be created, in the configuration data file the IRPManager shall first action the create action of parents MO instances before actioning the create of any child MO instances contained in the NRM subtree i.e. create actions on MO instances shall be specified in recursive manner following the NRM hierarchy subtree from the highest MO instances to the lowest MO instances the IRPManager requires to be created."

In such a tree of NRM instances, the XML element carrying a given NRM instance does not accurately appear before XML elements carrying subordinate NRM instances. The latter XML elements rather appear as the last part of the XML content of the former XML element.

Nevertheless, XML parsing of such a tree of NRM instances can still enable the above Bulk CM IRP IS rule to be fully respected. Example of an XML parsing enabling such compliance is one effectively actioning the creation of each NRM instance when having parsed the XML start-tag of the XML element carrying the NRM instance and, if any, the contained `attributes` XML element.

A tree of XML elements corresponding to a tree of NRM instances with all XML elements having a `modifier` XML attribute specification of value `delete` is considered to be in accordance with the following rule from Bulk CM IRP IS 3GPP TS 32.612 [1]:

"When part or whole NRM subtree is to be deleted, in the configuration data file the IRPManager shall first action delete of all associated child instances contained in the NRM subtree before actioning delete of MO parents instances i.e. delete actions on MO instances shall be specified in a recursive manner following the NRM hierarchy subtree from the lowest MO instances to the highest MO instances the IRPManager requires to be deleted."

In such a tree of NRM instances, the XML elements carrying subordinate NRM instances do not appear before the XML element carrying the parent NRM instance. The former XML elements rather appear as the XML content of the latter XML element.

Nevertheless, XML parsing of such a tree of NRM instances can still enable the above Bulk CM IRP IS rule to be fully respected. Example of an XML parsing enabling such compliance is one effectively actioning the delete of each NRM instance when parsing the XML end-tag of the XML element carrying the NRM instance.

The following are examples of legal configData XML element with regard to modifier XML attribute specification (in **bold**) in configuration data XML files:

- example 1:

```
<?xml version="1.0" encoding="UTF-8"?>
<bulkCmConfigDataFile
  xmlns=
    "http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32615-
500510.zip#configData"
  xmlns:xn=
    "http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32625-
500510.zip#genericNrm"
  [...]
  >
  [...]
  <configData dnPrefix="DC=a1.companyNN.com">
    <xn:SubNetwork id="1" modifier="create">
      <xn:attributes>
        <xn:userLabel>Paris SN1</xn:userLabel>
        <xn:userDefinedNetworkType>UMTS</xn:userDefinedNetworkType>
      </xn:attributes>
      <xn:ManagementNode id="1" modifier="create">
        <xn:attributes>
          <xn:userLabel>Paris MN1</xn:userLabel>
        [...]
          <xn:locationName>Montparnasse</xn:locationName>
        </xn:attributes>
      </xn:ManagementNode>
      <xn:ManagedElement id="1" modifier="create">
        <xn:attributes>
          <xn:managedElementType>RNC</xn:managedElementType>
        [...]
          <xn:locationName>Champ de Mars</xn:locationName>
        </xn:attributes>
      </xn:ManagedElement>
      <xn:ManagedElement id="2" modifier="create">
        <xn:attributes>
          <xn:managedElementType>RNC</xn:managedElementType>
        [...]
          <xn:locationName>Concorde</xn:locationName>
        </xn:attributes>
      </xn:ManagedElement>
    </xn:SubNetwork>
  </configData>
  [...]
</bulkCmConfigDataFile>
```

- example 2:

```
<?xml version="1.0" encoding="UTF-8"?>
<bulkCmConfigDataFile
  xmlns=
    "http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32615-
500510.zip#configData"
  xmlns:xn=
    "http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32625-
500510.zip#genericNrm"
  [...]
```



```

>
[...]
<configData dnPrefix="DC=a1.companyNN.com">
  <xn:SubNetwork id="1">
    <xn:ManagedElement id="1" modifier="create">
      <xn:attributes>
        <xn:managedElementType>RNC</xn:managedElementType>
      </xn:attributes>
    </xn:ManagedElement>
  </xn:SubNetwork>
</configData>
</bulkCmConfigDataFile>

```

- example 3:

```

<?xml version="1.0" encoding="UTF-8"?>
<bulkCmConfigDataFile
  xmlns=
"http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32615-
500510.zip#configData"
  xmlns:xn=
"http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32625-
500510.zip#genericNrm"
[...]
>
[...]
<configData dnPrefix="DC=a1.companyNN.com">
  <xn:SubNetwork id="1" modifier="delete">
    <xn:ManagementNode id="1" modifier="delete">
      </xn:ManagementNode>
    <xn:ManagedElement id="1" modifier="delete">
      </xn:ManagedElement>
    <xn:ManagedElement id="2" modifier="delete">
      </xn:ManagedElement>
    </xn:SubNetwork>
  </configData>
</bulkCmConfigDataFile>

```

- example 4:

```

<?xml version="1.0" encoding="UTF-8"?>
<bulkCmConfigDataFile
  xmlns=
"http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32615-
500510.zip#configData"
  xmlns:xn=
"http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32625-
500510.zip#genericNrm"
[...]
>
[...]
<configData dnPrefix="DC=a1.companyNN.com">

```

```

    <xn:SubNetwork id="1">
      <xn:ManagedElement id="1" modifier="delete">
      </xn:ManagedElement>
      <xn:ManagedElement id="2" modifier="delete">
      </xn:ManagedElement>
    </xn:SubNetwork>
  </configData>
[...]
```

- example 5:

```

<?xml version="1.0" encoding="UTF-8"?>
<bulkCmConfigDataFile
  xmlns=
"http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32615-
500510.zip#configData"
  xmlns:xn=
"http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32625-
500510.zip#genericNrm"
  xmlns:un=
"http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32645-500510.zip#utranNrm"
[...]
```

```

>
[...]
```

```

  <configData dnPrefix="DC=a1.companyNN.com">
    <xn:SubNetwork id="1" modifier="update">
      <xn:attributes>
        <xn:userLabel>Paris SN1</xn:userLabel>
      </xn:attributes>
      <xn:ManagementNode id="1" modifier="update">
        <xn:attributes>
          <xn:userLabel>Paris MN1</xn:userLabel>
        </xn:attributes>
      </xn:ManagementNode>
      <xn:ManagedElement id="1" modifier="delete">
        <un:RncFunction id="1" modifier="delete">
        </un:RncFunction>
      </xn:ManagedElement>
      <xn:ManagedElement id="2" modifier="create">
        <xn:attributes>
          <xn:managedElementType>RNC</xn:managedElementType>
[...]
```

```

          <xn:locationName>Concorde</xn:locationName>
        </xn:attributes>
        <un:RncFunction id="2" modifier="create">
          <un:attributes>
            <un:userLabel>Paris RF2</un:userLabel>
[...]
```

```

            <un:rncId>2</un:rncId>
          </un:attributes>
        </un:RncFunction>
      </xn:ManagedElement>
      <xn:ManagedElement id="3">
        <un:RncFunction id="3" modifier="update">
          <un:attributes>
            <un:userLabel>Paris RF3</un:userLabel>
          </un:attributes>
        </un:RncFunction>
      </xn:ManagedElement>
    </xn:SubNetwork>
  </configData>
```

```
[...]
</bulkCmConfigDataFile>
```

End of Change in Subclause 4.4

Change in Subclause 4.5

4.5 XML elements `VsDataContainer`, `vsData` and `vsDataFormatVersion`

As all XML element types corresponding to NRM classes (see subclause 4.3A.2), the `VsDataContainer` XML element type, explicitly declared in 3GPP TS 32.625 [11], corresponds to the `VsDataContainer` NRM class defined in 3GPP TS 32.622 [8].

Contained in an `attributes` XML element type, itself contained in a `VsDataContainer` XML element, as all XML element types corresponding to NRM attributes (see subclause 4.3A.2), the `vsData` and `vsDataFormatVersion` XML element types, explicitly declared in 3GPP TS 32.625 [11], correspond to the `vsData` and `vsDataFormatVersion` NRM attributes defined in 3GPP TS 32.622 [8].

As an exception to the generic mapping rules for the definition of NRM-specific XML element types (see subclause 4.3A.2), the `vsData` XML element type has an empty XML content.

Each vendor-specific XML schema shall declare one or more vendor-specific XML element types that:

- have a name starting with `vsData`, e.g. `vsDataRHO`;
- derive by extension (see [3], [4] and [5]) the `vsData` XML element type declared by the XML schema `genericNrm.xsd` (see [11]);
- are designated as members of the substitution group (see [3], [4] and [5]) headed by the `vsData` XML element type.

Beyond the above statement, the definition of vendor-specific XML schemas is outside the scope of this document.

The XML content of those vendor-specific XML elements carry vendor-specific data.

The XML content of the `vsDataFormatVersion` XML element shall be the filename, without the ".xsd" file extension and without any path specification, of the vendor-specific XML schema used for the related `VsDataContainer` XML element.

See Annex C for an example of a vendor-specific XML schema.

The following is an example of a vendor-specific XML element (in **bold**) deriving and extending the `vsData` XML element in a configuration data XML file:

```
<?xml version="1.0" encoding="UTF-8"?>
<bulkCmConfigDataFile
  xmlns=
    "http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32615-
500510.zip#configData"
  xmlns:xn=
    "http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32625-
500510.zip#genericNrm"
  xmlns:un=
    "http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32645-500510.zip#utranNrm"
  xmlns:vsRH011="http://www.companyNN.com/xmlschemas/NNRncHandOver.1.1"
[...
>
[...
  <configData dnPrefix="DC=a1.companyNN.com">
    <xn:SubNetwork id="1">
```

```

<xn:ManagedElement id="1">
  <un:RncFunction id="1">
    <xn:VsDataContainer id="1">
      <xn:attributes>
        <xn:vsDataType>RncHandOver</xn:vsDataType>
        <xn:vsDataFormatVersion>NNRncHandOver.1.1</xn:vsDataFormatVersion>
        <vsRHO11:vsDataRHO>
          <vsRHO11:abcMin>12</vsRHO11:abcMin>
          <vsRHO11:abcMax>34</vsRHO11:abcMax>
        </vsRHO11:vsDataRHO>
      </xn:attributes>
    </xn:VsDataContainer>
  </un:RncFunction>
</xn:ManagedElement>
</xn:SubNetwork>
</configData>
[...]
```

End of Change in Subclause 4.5

Change in Clause Annex A

Annex A (normative): Configuration data file base XML schema

The following XML schema `configData.xsd` is the base schema for configuration data XML files:

```

<?xml version="1.0" encoding="UTF-8"?>

<!--
  3GPP TS 32.615 Bulk CM IRP
  Configuration data file base XML schema
  configData.xsd
-->

<schema
  targetNamespace=
    "http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32615-
500510.zip#configData"
  elementFormDefault="qualified"
  xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:xn=
    "http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32625-
500510.zip#genericNrm"
>

  <import
    namespace=
      "http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32625-
500510.zip#genericNrm"
    />

  <!-- Configuration data file root XML element -->

  <element name="bulkCmConfigDataFile">
    <complexType>
      <sequence>
        <element name="fileHeader">
```

```

    <complexType>
      <attribute name="fileFormatVersion" type="string" use="required"/>
      <attribute name="senderName" type="string" use="optional"/>
      <attribute name="vendorName" type="string" use="optional"/>
    </complexType>
  </element>
  <element name="configData" maxOccurs="unbounded">
    <complexType>
      <choice>
        <element ref="xn:SubNetwork"/>
        <element ref="xn:MeContext"/>
        <element ref="xn:ManagedElement"/>
      </choice>
      <attribute name="dnPrefix" type="string" use="optional"/>
    </complexType>
  </element>
  <element name="fileFooter">
    <complexType>
      <attribute name="dateTime" type="dateTime" use="required"/>
    </complexType>
  </element>
</sequence>
</complexType>
</element>

</schema>

```

End of Change in Clause Annex A
--

Change in Clause Annex C

Annex C (informative): Configuration data file vendor-specific XML schema example

The following XML schema is an example of vendor-specific schema for configuration data XML files:

```

<?xml version="1.0" encoding="UTF-8"?>

<!--
  Configuration data file vendor-specific XML schema example
  NNRncHandOver.1.1.xsd
-->

<schema
  targetNamespace="http://www.companyNN.com/xmlschemas/NNRncHandOver.1.1"
  elementFormDefault="qualified"
  xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:xn=
"http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32625-
500510.zip#genericNrm"
>

  <import
    namespace=
"http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32625-
500510.zip#genericNrm"
  />

```

```
<!-- RncHandOver version 1.1 company NN vendor-specific data -->
<element name="vsDataRHO" substitutionGroup="xn:vsData">
  <complexType>
    <complexContent>
      <extension base="xn:vsData">
        <all>
          <element name="abcMin" minOccurs="0"/>
          <element name="abcMax" minOccurs="0"/>
        </all>
      </extension>
    </complexContent>
  </complexType>
</element>
</schema>
```

End of Change in Clause Annex C End of Document
--

CHANGE REQUEST

⌘ **32.655 CR 002** ⌘ 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:	⌘ Correction of GERAN NRM XML schema namespace URIs		
Source:	⌘ S5 Nortel Networks (bonneau@nortelnetworks.com)		
Work item code:	⌘ OAM-NIM	Date:	⌘ 23/05/2003
Category:	⌘ F	Release:	⌘ Rel-5
	Use <u>one</u> 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 <u>one</u> 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:	⌘ GERAN NRM XML schema namespace URIs are incorrect.		
Summary of change:	⌘ <ul style="list-style-type: none"> Correction of GERAN NRM XML schema namespace URI definition Correction of references to Generic NRM XML schema namespace URI Correction of references to UTRAN NRM XML schema namespace URI Correction of references to GERAN NRM XML schema namespace URI 		
Consequences if not approved:	⌘ Implementation of Rel-5 Bulk CM configuration data XML files would be impossible.		

Clauses affected:	⌘ Annex A										
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">N</td> </tr> <tr> <td style="width: 20px;"><input type="checkbox"/></td> <td style="width: 20px;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="width: 20px;"><input type="checkbox"/></td> <td style="width: 20px;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="width: 20px;"><input checked="" type="checkbox"/></td> <td style="width: 20px;"><input type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Other core specifications Test specifications O&M Specifications	⌘ Rel-5 32.615, 32.625, 32.635, 32.645
Y	N										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<input checked="" type="checkbox"/>	<input type="checkbox"/>										
Other comments:	⌘ CR associated with sibling CRs S5-036539, S5-036540, S5-036541, S5-036543. The XML schema file "geranNrm.xsd" reflects the changes from this CR (only).										

Change in Clause Annex A

Annex A (normative): Configuration data file NRM-specific XML schema geranNrm.xsd

The following XML schema `geranNrm.xsd` is the NRM-specific schema for the GERAN Network Resources IRP NRM defined in 3GPP TS 32.652 [1]:

```
<?xml version="1.0" encoding="UTF-8"?>

<!--
  3GPP TS 32.655 GERAN Network Resources IRP
  Bulk CM Configuration data file NRM-specific XML schema
  geranNrm.xsd
-->

<schema
  targetNamespace=
  "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32655-
  500510.zip#geranNrm"
  elementFormDefault="qualified"
  xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:xn=
  "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32625-
  500510.zip#genericNrm"
  xmlns:un=
  "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32645-
  500510.zip#utranNrm"
  xmlns:gn=
  "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32655-
  500510.zip#geranNrm"
  >

  <import
    namespace=
    "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32625-
    500510.zip#genericNrm"
    />
  <import
    namespace=
    "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32645-
    500510.zip#utranNrm"
    />

  <!-- GERAN Network Resources IRP NRM class associated XML elements -->

  <element name="BssFunction">
    <complexType>
      <complexContent>
        <extension base="xn:NrmClassXmlType">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="userLabel" minOccurs="0"/>
                </all>
              </complexType>
            </element>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>
```



```

        <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="gn:BtsSiteMgr"/>
            <element ref="xn:VsDataContainer"/>
        </choice>
    </sequence>
</extension>
</complexContent>
</complexType>
</element>

<element name="BtsSiteMgr">
    <complexType>
        <complexContent>
            <extension base="xn:NrmClassXmlType">
                <sequence>
                    <element name="attributes" minOccurs="0">
                        <complexType>
                            <all>
                                <element name="userLabel" minOccurs="0"/>
                                <element name="latitude" minOccurs="0"/>
                                <element name="longitude" minOccurs="0"/>
                            </all>
                        </complexType>
                    </element>
                    <choice minOccurs="0" maxOccurs="unbounded">
                        <element ref="gn:GsmCell"/>
                        <element ref="xn:VsDataContainer"/>
                    </choice>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>

<element name="GsmCell">
    <complexType>
        <complexContent>
            <extension base="xn:NrmClassXmlType">
                <sequence>
                    <element name="attributes" minOccurs="0">
                        <complexType>
                            <all>
                                <element name="userLabel" minOccurs="0"/>
                                <element name="cellIdentity" minOccurs="0"/>
                                <element name="cellAllocation" minOccurs="0"/>
                                <element name="ncc" minOccurs="0"/>
                                <element name="bcc" minOccurs="0"/>
                                <element name="lac" minOccurs="0"/>
                                <element name="mcc" minOccurs="0"/>
                                <element name="mnc" minOccurs="0"/>
                                <element name="rac" minOccurs="0"/>
                                <element name="racc" minOccurs="0"/>
                                <element name="tsc" minOccurs="0"/>
                                <element name="rxLevAccessMin" minOccurs="0"/>
                                <element name="msTxPwrMaxCCH" minOccurs="0"/>
                                <element name="hoppingSequenceNumber" minOccurs="0"/>
                                <element name="plmnPermitted" minOccurs="0"/>
                            </all>
                        </complexType>
                    </element>
                    <choice minOccurs="0" maxOccurs="unbounded">
                        <element ref="gn:GsmRelation"/>
                        <element ref="un:UtranRelation"/>
                    </choice>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>

```

```

        <element ref="xn:VsDataContainer"/>
    </choice>
</sequence>
</extension>
</complexContent>
</complexType>
</element>

<element name="GsmRelation">
    <complexType>
        <complexContent>
            <extension base="xn:NrmClassXmlType">
                <sequence>
                    <element name="attributes" minOccurs="0">
                        <complexType>
                            <all>
                                <element name="relationType" minOccurs="0"/>
                                <element name="adjacentCell" minOccurs="0"/>
                                <element name="bcchFrequency" minOccurs="0"/>
                                <element name="ncc" minOccurs="0"/>
                                <element name="bcc" minOccurs="0"/>
                                <element name="lac" minOccurs="0"/>
                            </all>
                        </complexType>
                    </element>
                    <choice minOccurs="0" maxOccurs="unbounded">
                        <element ref="xn:VsDataContainer"/>
                    </choice>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>

<element name="ExternalGsmCell">
    <complexType>
        <complexContent>
            <extension base="xn:NrmClassXmlType">
                <sequence>
                    <element name="attributes" minOccurs="0">
                        <complexType>
                            <all>
                                <element name="userLabel" minOccurs="0"/>
                                <element name="cellIdentity" minOccurs="0"/>
                                <element name="bcchFrequency" minOccurs="0"/>
                                <element name="ncc" minOccurs="0"/>
                                <element name="bcc" minOccurs="0"/>
                                <element name="lac" minOccurs="0"/>
                                <element name="mcc" minOccurs="0"/>
                                <element name="mnc" minOccurs="0"/>
                                <element name="rac" minOccurs="0"/>
                                <element name="racc" minOccurs="0"/>
                            </all>
                        </complexType>
                    </element>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>
</schema>

```

**End of Change in Clause Annex A
End of Document**

CHANGE REQUEST

⌘ **32.645 CR 002** ⌘ 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:	⌘ Correction of UTRAN NRM XML schema namespace URIs		
Source:	⌘ S5 Nortel Networks (bonneau@nortelnetworks.com)		
Work item code:	⌘ OAM-NIM	Date:	⌘ 23/05/2003
Category:	⌘ F	Release:	⌘ Rel-5
	Use <u>one</u> 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 <u>one</u> 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:	⌘ UTRAN NRM XML schema namespace URIs are incorrect.		
Summary of change:	⌘ <ul style="list-style-type: none"> Correction of UTRAN NRM XML schema namespace URI definition Correction of references to Generic NRM XML schema namespace URI Correction of references to UTRAN NRM XML schema namespace URI Correction of references to GERAN NRM XML schema namespace URI 		
Consequences if not approved:	⌘ Implementation of Rel-5 Bulk CM configuration data XML files would be impossible.		

Clauses affected:	⌘ Annex A						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Test specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table> O&M Specifications	Y	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Rel-5 32.615, 32.625, 32.635, 32.655
Y	N						
<input checked="" type="checkbox"/>	<input type="checkbox"/>						
Other comments:	⌘ CR associated with sibling CRs S5-036539, S5-036540, S5-036542, S5-036543. The XML schema file "utranNrm.xsd" reflects the changes from this CR (only).						

Change in Clause Annex A

Annex A (normative): Configuration data file NRM-specific XML schema utranNrm.xsd

The following XML schema utranNrm.xsd is the NRM-specific schema for the UTRAN Network Resources IRP NRM defined in 3GPP TS 32.642 [1]:

```
<?xml version="1.0" encoding="UTF-8"?>

<!--
  3GPP TS 32.645 UTRAN Network Resources IRP
  Bulk CM Configuration data file NRM-specific XML schema
  utranNrm.xsd
-->

<schema
  targetNamespace=
  "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32645-
  500510.zip#utranNrm"
  elementFormDefault="qualified"
  xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:xn=
  "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32625-
  500510.zip#genericNrm"
  xmlns:un=
  "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32645-
  500510.zip#utranNrm"
  xmlns:gn=
  "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32655-
  500510.zip#geranNrm"
  >

  <import
    namespace=
    "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32625-
    500510.zip#genericNrm"
    />
  <import
    namespace=
    "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32655-
    500510.zip#geranNrm"
    />

  <!-- UTRAN Network Resources IRP NRM attribute related XML simple types -->

  <simpleType name="localCellIdType">
    <restriction base="integer">
      <minInclusive value="0"/>
      <maxInclusive value="268435455"/>
    </restriction>
  </simpleType>

  <simpleType name="cIdType">
    <restriction base="integer">
      <minInclusive value="0"/>
      <maxInclusive value="65535"/>
    </restriction>
```

```
</simpleType>

<simpleType name="uarfcnDlType">
  <union>
    <simpleType>
      <restriction base="integer">
        <minInclusive value="9662"/>
        <maxInclusive value="9938"/>
      </restriction>
    </simpleType>
    <simpleType>
      <restriction base="integer">
        <minInclusive value="10562"/>
        <maxInclusive value="10838"/>
      </restriction>
    </simpleType>
  </union>
</simpleType>

<simpleType name="uarfcnUlType">
  <union>
    <simpleType>
      <restriction base="integer">
        <minInclusive value="9262"/>
        <maxInclusive value="9538"/>
      </restriction>
    </simpleType>
    <simpleType>
      <restriction base="integer">
        <minInclusive value="9612"/>
        <maxInclusive value="9888"/>
      </restriction>
    </simpleType>
  </union>
</simpleType>

<simpleType name="primaryScramblingCodeType">
  <restriction base="integer">
    <minInclusive value="0"/>
    <maxInclusive value="511"/>
  </restriction>
</simpleType>

<simpleType name="primaryCpichTxPowerType">
  <restriction base="decimal">
    <fractionDigits value="1"/>
    <minInclusive value="-10"/>
    <maxInclusive value="+50"/>
  </restriction>
</simpleType>

<simpleType name="maximumTransmissionPowerType">
  <restriction base="decimal">
    <fractionDigits value="1"/>
    <minInclusive value="0"/>
    <maxInclusive value="50"/>
  </restriction>
</simpleType>

<simpleType name="primarySchPowerType">
  <restriction base="decimal">
    <fractionDigits value="1"/>
    <minInclusive value="-35"/>
  </restriction>
</simpleType>
```

```

        <maxInclusive value="+15"/>
    </restriction>
</simpleType>

<simpleType name="secondarySchPowerType">
    <restriction base="decimal">
        <fractionDigits value="1"/>
        <minInclusive value="-35"/>
        <maxInclusive value="+15"/>
    </restriction>
</simpleType>

<simpleType name="bchPowerType">
    <restriction base="decimal">
        <fractionDigits value="1"/>
        <minInclusive value="-35"/>
        <maxInclusive value="+15"/>
    </restriction>
</simpleType>

<simpleType name="lacType">
    <union>
        <simpleType>
            <restriction base="integer">
                <minInclusive value="1"/>
                <maxInclusive value="65533"/>
            </restriction>
        </simpleType>
        <simpleType>
            <restriction base="integer">
                <minInclusive value="65535"/>
                <maxInclusive value="65535"/>
            </restriction>
        </simpleType>
    </union>
</simpleType>

<simpleType name="racType">
    <restriction base="integer">
        <minInclusive value="0"/>
        <maxInclusive value="255"/>
    </restriction>
</simpleType>

<simpleType name="sacType">
    <restriction base="integer">
        <minInclusive value="0"/>
        <maxInclusive value="65535"/>
    </restriction>
</simpleType>

<simpleType name="uraType">
    <restriction base="integer">
        <minInclusive value="0"/>
        <maxInclusive value="65535"/>
    </restriction>
</simpleType>

<!-- UTRAN Network Resources IRP NRM class associated XML elements -->

<element name="RncFunction">
    <complexType>
        <complexContent>

```

```

<extension base="xn:NrmClassXmlType">
  <sequence>
    <element name="attributes" minOccurs="0">
      <complexType>
        <all>
          <element name="userLabel" minOccurs="0"/>
          <element name="mcc" minOccurs="0"/>
          <element name="mnc" minOccurs="0"/>
          <element name="rncId" minOccurs="0"/>
        </all>
      </complexType>
    </element>
    <choice minOccurs="0" maxOccurs="unbounded">
      <element ref="un:UtranCell"/>
      <element ref="un:IubLink"/>
      <element ref="xn:VsDataContainer"/>
    </choice>
  </sequence>
</extension>
</complexContent>
</complexType>
</element>

<element name="NodeBFunction">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" minOccurs="0"/>
                <element name="nodeBFunctionIubLink" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="UtranCell">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" minOccurs="0"/>
                <element name="cId" type="un:cIdType" minOccurs="0"/>
                <element
                  name="localCellId"
                  type="un:localCellIdType"
                  minOccurs="0"
                />
                <element
                  name="uarfcnUl"
                  type="un:uarfcnDlType"
                />
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

```



```

        minOccurs="0"
      />
    <element
      name="uarfcnDl"
      type="un:uarfcnUlType"
      minOccurs="0"
    />
    <element
      name="primaryScramblingCode"
      type="un:primaryScramblingCodeType"
      minOccurs="0"
    />
    <element
      name="primaryCpichTxPower"
      type="un:primaryCpichTxPowerType"
      minOccurs="0"
    />
    <element
      name="maximumTransmissionPower"
      type="un:maximumTransmissionPowerType"
      minOccurs="0"
    />
    <element
      name="primarySchPower"
      type="un:primarySchPowerType"
      minOccurs="0"
    />
    <element
      name="secondarySchPower"
      type="un:secondarySchPowerType"
      minOccurs="0"
    />
    <element name="bchPower"
      type="un:bchPowerType"
      minOccurs="0"
    />
    <element name="lac" type="un:lacType" minOccurs="0" />
    <element name="rac" type="un:racType" minOccurs="0" />
    <element name="sac" type="un:sacType" minOccurs="0" />
    <element name="ura" type="un:uraType" minOccurs="0" />
    <element name="utranCellIubLink" minOccurs="0" />
  </all>
</complexType>
</element>
<choice minOccurs="0" maxOccurs="unbounded">
  <element ref="un:UtranRelation" />
  <element ref="gn:GsmRelation" />
  <element ref="xn:VsDataContainer" />
</choice>
</sequence>
</extension>
</complexContent>
</complexType>
</element>

<element name="IubLink">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>

```

```

        <element name="userLabel" minOccurs="0"/>
        <element name="iubLinkUtranCell" minOccurs="0"/>
        <element name="iubLinkNodeBFunction" minOccurs="0"/>
    </all>
</complexType>
</element>
</sequence>
</extension>
</complexContent>
</complexType>
</element>

<element name="UtranRelation">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="relationType" minOccurs="0"/>
                <element name="adjacentCell" minOccurs="0"/>
                <element
                  name="uarfcnUl"
                  type="un:uarfcnUlType"
                  minOccurs="0"
                />
                <element
                  name="uarfcnDl"
                  type="un:uarfcnUlType"
                  minOccurs="0"
                />
                <element name="primaryScramblingCode" minOccurs="0"/>
                <element name="primaryCpichTxPower" minOccurs="0"/>
                <element
                  name="primaryScramblingCode"
                  type="un:primaryScramblingCodeType"
                  minOccurs="0"
                />
                <element
                  name="primaryCpichTxPower"
                  type="un:primaryCpichTxPowerType"
                  minOccurs="0"
                />
                <element name="lac" type="un:lacType" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="ExternalUtranCell">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">

```

```
<complexType>
  <all>
    <element name="userLabel" minOccurs="0"/>
    <element name="cId" type="un:cIdType" minOccurs="0"/>
    <element name="mcc" minOccurs="0"/>
    <element name="mnc" minOccurs="0"/>
    <element name="rncId" minOccurs="0"/>
    <element
      name="uarfcnUl"
      type="un:uarfcnUlType"
      minOccurs="0"
    />
    <element
      name="uarfcnDl"
      type="un:uarfcnDlType"
      minOccurs="0"
    />
    <element name="primaryScramblingCode" minOccurs="0"/>
    <element name="primaryCpichTxPower" minOccurs="0"/>
    <element
      name="primaryScramblingCode"
      type="un:primaryScramblingCodeType"
      minOccurs="0"
    />
    <element
      name="primaryCpichTxPower"
      type="un:primaryCpichTxPowerType"
      minOccurs="0"
    />
    <element name="lac" type="un:lacType" minOccurs="0"/>
    <element name="rac" type="un:racType" minOccurs="0"/>
  </all>
</complexType>
</element>
</sequence>
</extension>
</complexContent>
</complexType>
</element>

</schema>
```

End of Change in Clause Annex A End of Document
--

CHANGE REQUEST

⌘ **32.635 CR 001** ⌘ 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:	⌘ Correction of Core NRM XML schema namespace URIs		
Source:	⌘ S5 Nortel Networks (bonneau@nortelnetworks.com)		
Work item code:	⌘ OAM-NIM	Date:	⌘ 23/05/2003
Category:	⌘ F	Release:	⌘ Rel-5
	Use <u>one</u> 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 <u>one</u> 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:	⌘ Core NRM XML schema namespace URIs are incorrect.		
Summary of change:	⌘ <ul style="list-style-type: none"> • Correction of Core NRM XML schema namespace URI definition • Correction of references to Generic NRM XML schema namespace URI 		
Consequences if not approved:	⌘ Implementation of Rel-5 Bulk CM configuration data XML files would be impossible.		

Clauses affected:	⌘ Annex A						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Test specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table> O&M Specifications	Y	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Rel-5 32.615, 32.625, 32.645, 32.655
Y	N						
<input checked="" type="checkbox"/>	<input type="checkbox"/>						
Other comments:	⌘ CR associated with sibling CRs S5-036539, S5-036541, S5-036542, S5-036543. The XML schema file "coreNrm.xsd" reflects the changes from this CR (only).						

Change in Clause Annex A

Annex A (normative): Configuration data file NRM-specific XML schema coreNrm.xsd

The following XML schema coreNrm.xsd is the NRM-specific schema for the Core Network Resources IRP NRM defined in 3GPP TS 32.632 [1]:

```
<?xml version="1.0" encoding="UTF-8"?>

<!--
  3GPP TS 32.635 Core Network Resources IRP
  Bulk CM Configuration data file NRM-specific XML schema
  coreNrm.xsd
-->

<schema
  targetNamespace=
  "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32635-
  500510.zip#coreNrm"
  elementFormDefault="qualified"
  xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:xn=
  "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32625-
  500510.zip#genericNrm"
  >

  <import
    namespace=
    "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32625-
    500510.zip#genericNrm"
    />

  <!-- Core Network Resources IRP NRM class associated XML elements -->

  <element name="MscFunction">
    <complexType>
      <complexContent>
        <extension base="xn:NrmClassXmlType">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="userLabel" minOccurs="0"/>
                </all>
              </complexType>
            </element>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>

  <element name="HlrFunction">
    <complexType>
      <complexContent>
        <extension base="xn:NrmClassXmlType">
          <sequence>
```

```

        <element name="attributes" minOccurs="0">
            <complexType>
                <all>
                    <element name="userLabel" minOccurs="0"/>
                </all>
            </complexType>
        </element>
    </sequence>
</extension>
</complexContent>
</complexType>
</element>

<element name="VlrFunction">
    <complexType>
        <complexContent>
            <extension base="xn:NrmClassXmlType">
                <sequence>
                    <element name="attributes" minOccurs="0">
                        <complexType>
                            <all>
                                <element name="userLabel" minOccurs="0"/>
                            </all>
                        </complexType>
                    </element>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>

<element name="AucFunction">
    <complexType>
        <complexContent>
            <extension base="xn:NrmClassXmlType">
                <sequence>
                    <element name="attributes" minOccurs="0">
                        <complexType>
                            <all>
                                <element name="userLabel" minOccurs="0"/>
                            </all>
                        </complexType>
                    </element>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>

<element name="EirFunction">
    <complexType>
        <complexContent>
            <extension base="xn:NrmClassXmlType">
                <sequence>
                    <element name="attributes" minOccurs="0">
                        <complexType>
                            <all>
                                <element name="userLabel" minOccurs="0"/>
                            </all>
                        </complexType>
                    </element>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>

```

```

    </complexContent>
  </complexType>
</element>

<element name="SmsIwmscFunction">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="SmsGmscFunction">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="GmscFunction">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="SgsnFunction">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>

```

```

        <element name="attributes" minOccurs="0">
            <complexType>
                <all>
                    <element name="userLabel" minOccurs="0"/>
                </all>
            </complexType>
        </element>
    </sequence>
</extension>
</complexContent>
</complexType>
</element>

<element name="GgsnFunction">
    <complexType>
        <complexContent>
            <extension base="xn:NrmClassXmlType">
                <sequence>
                    <element name="attributes" minOccurs="0">
                        <complexType>
                            <all>
                                <element name="userLabel" minOccurs="0"/>
                            </all>
                        </complexType>
                    </element>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>

<element name="BgFunction">
    <complexType>
        <complexContent>
            <extension base="xn:NrmClassXmlType">
                <sequence>
                    <element name="attributes" minOccurs="0">
                        <complexType>
                            <all>
                                <element name="userLabel" minOccurs="0"/>
                            </all>
                        </complexType>
                    </element>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>

<element name="SmlcFunction">
    <complexType>
        <complexContent>
            <extension base="xn:NrmClassXmlType">
                <sequence>
                    <element name="attributes" minOccurs="0">
                        <complexType>
                            <all>
                                <element name="userLabel" minOccurs="0"/>
                            </all>
                        </complexType>
                    </element>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>

```



```

    </complexContent>
  </complexType>
</element>

<element name="GmlcFunction">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="ScfFunction">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="SrfFunction">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="CbcFunction">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>

```

```

        <element name="attributes" minOccurs="0">
            <complexType>
                <all>
                    <element name="userLabel" minOccurs="0"/>
                </all>
            </complexType>
        </element>
    </sequence>
</extension>
</complexContent>
</complexType>
</element>

<element name="CgfFunction">
    <complexType>
        <complexContent>
            <extension base="xn:NrmClassXmlType">
                <sequence>
                    <element name="attributes" minOccurs="0">
                        <complexType>
                            <all>
                                <element name="userLabel" minOccurs="0"/>
                            </all>
                        </complexType>
                    </element>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>

<element name="MgwFunction">
    <complexType>
        <complexContent>
            <extension base="xn:NrmClassXmlType">
                <sequence>
                    <element name="attributes" minOccurs="0">
                        <complexType>
                            <all>
                                <element name="userLabel" minOccurs="0"/>
                            </all>
                        </complexType>
                    </element>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>

<element name="GmscServerFunction">
    <complexType>
        <complexContent>
            <extension base="xn:NrmClassXmlType">
                <sequence>
                    <element name="attributes" minOccurs="0">
                        <complexType>
                            <all>
                                <element name="userLabel" minOccurs="0"/>
                            </all>
                        </complexType>
                    </element>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</element>

```

```

    </complexContent>
  </complexType>
</element>

<element name="IwfFunction">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="MnpSrfFunction">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="NpdbFunction">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="SgwFunction">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>

```

```

    <element name="attributes" minOccurs="0">
      <complexType>
        <all>
          <element name="userLabel" minOccurs="0"/>
        </all>
      </complexType>
    </element>
  </sequence>
</extension>
</complexContent>
</complexType>
</element>

<element name="SsfFunction">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="BsFunction">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>
</schema>

```

End of Change in Clause Annex A End of Document
--

CHANGE REQUEST

⌘ **32.625 CR 001** ⌘ 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:	⌘ Correction of Generic NRM XML schema namespace URIs		
Source:	⌘ S5 Nortel Networks (bonneau@nortelnetworks.com)		
Work item code:	⌘ OAM-NIM	Date:	⌘ 23/05/2003
Category:	⌘ F	Release:	⌘ Rel-5
	Use <u>one</u> 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 <u>one</u> 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:	⌘ Generic NRM XML schema namespace URIs are incorrect.		
Summary of change:	⌘ <ul style="list-style-type: none"> Correction of Generic NRM XML schema namespace URI definition Correction of references to Generic NRM XML schema namespace URI Correction of references to Core NRM XML schema namespace URI Correction of references to UTRAN NRM XML schema namespace URI Correction of references to GERAN NRM XML schema namespace URI 		
Consequences if not approved:	⌘ Implementation of Rel-5 Bulk CM configuration data XML files would be impossible.		

Clauses affected:	⌘ Annex A						
Other specs affected:	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	⌘	
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Test specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table> O&M Specifications	Y	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>		Rel-5 32.615, 32.635, 32.645, 32.655
Y	N						
<input checked="" type="checkbox"/>	<input type="checkbox"/>						
Other comments:	⌘ CR associated with sibling CRs S5-036540, S5-036541, S5-036542, S5-036543. The XML schema file "genericNrm.xsd" reflects the changes from this CR (only).						

Change in Clause Annex A

Annex A (normative): Configuration data file NRM-specific XML schema genericNrm.xsd

The following XML schema genericNrm.xsd is the NRM-specific schema for the Generic Network Resources IRP NRM defined in 3GPP TS 32.622 [1]:

```
<?xml version="1.0" encoding="UTF-8"?>

<!--
  3GPP TS 32.625 Generic Network Resources IRP
  Bulk CM Configuration data file NRM-specific XML schema
  genericNrm.xsd
-->

<schema
  targetNamespace=
  "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32625-
  500510.zip#genericNrm"
  elementFormDefault="qualified"
  xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:xn=
  "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32625-
  500510.zip#genericNrm"
  xmlns:cn=
  "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32635-
  500510.zip#coreNrm"
  xmlns:un=
  "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32645-
  500510.zip#utranNrm"
  xmlns:gn=
  "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32655-
  500510.zip#geranNrm"
>

  <import
    namespace=
    "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32635-
    500510.zip#coreNrm"
    />
  <import
    namespace=
    "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32645-
    500510.zip#utranNrm"
    />
  <import
    namespace=
    "http://www.3gpp.org/ftp/specs/latest/rel-4rel-5/32_series/32655-
    500510.zip#geranNrm"
    />

  <!-- Abstract base type for all NRM class associated XML elements -->

  <complexType name="NrmClassXmlType" abstract="true">
    <attribute name="id" type="string" use="required"/>
    <attribute name="modifier" use="optional">
      <simpleType>
```

```

    <restriction base="string">
      <enumeration value="create"/>
      <enumeration value="delete"/>
      <enumeration value="update"/>
    </restriction>
  </simpleType>
</attribute>
</complexType>

<!-- Generic Network Resources IRP NRM class associated XML elements -->

<element name="SubNetwork">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" minOccurs="0"/>
                <element name="userDefinedNetworkType" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="xn:SubNetwork"/>
            <element ref="xn:ManagedElement"/>
            <element ref="xn:MeContext"/>
            <element ref="xn:ManagementNode"/>
            <element ref="xn:IRPAgent"/>
            <element ref="un:ExternalUtranCell"/>
            <element ref="gn:ExternalGsmCell"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="ManagedElement">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="managedElementType" minOccurs="0"/>
                <element name="userLabel" minOccurs="0"/>
                <element name="vendorName" minOccurs="0"/>
                <element name="userDefinedState" minOccurs="0"/>
                <element name="locationName" minOccurs="0"/>
                <element name="swVersion" minOccurs="0"/>
                <element name="managedBy" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="xn:IRPAgent"/>
            <element ref="un:RncFunction"/>
            <element ref="un:NodeBFunction"/>
            <element ref="gn:BssFunction"/>
            <element ref="cn:MscFunction"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

```

```

    <element ref="cn:HlrFunction"/>
    <element ref="cn:VlrFunction"/>
    <element ref="cn:AucFunction"/>
    <element ref="cn:EirFunction"/>
    <element ref="cn:SmsIwmscFunction"/>
    <element ref="cn:SmsGmscFunction"/>
    <element ref="cn:GmscFunction"/>
    <element ref="cn:SgsnFunction"/>
    <element ref="cn:GgsnFunction"/>
    <element ref="cn:BgFunction"/>
    <element ref="cn:SmlcFunction"/>
    <element ref="cn:GmlcFunction"/>
    <element ref="cn:ScfFunction"/>
    <element ref="cn:SrfFunction"/>
    <element ref="cn:CbcFunction"/>
    <element ref="cn:CgfFunction"/>
    <element ref="cn:MgwFunction"/>
    <element ref="cn:GmscServerFunction"/>
    <element ref="cn:IwfFunction"/>
    <element ref="cn:MnpSrfFunction"/>
    <element ref="cn:NpdbFunction"/>
    <element ref="cn:SgwFunction"/>
    <element ref="cn:SsfFunction"/>
    <element ref="cn:BsFunction"/>
  </choice>
</sequence>
</extension>
</complexContent>
</complexType>
</element>

<element name="MeContext">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="xn:ManagedElement"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="ManagementNode">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" minOccurs="0"/>
                <element name="vendorName" minOccurs="0"/>
                <element name="userDefinedState" minOccurs="0"/>
                <element name="locationName" minOccurs="0"/>
                <element name="manages" minOccurs="0"/>
                <element name="swVersion" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

```



```

        </all>
      </complexType>
    </element>
    <choice minOccurs="0" maxOccurs="unbounded">
      <element ref="xn:IRPAgent"/>
    </choice>
  </sequence>
</extension>
</complexContent>
</complexType>
</element>

<element name="IRPAgent">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="systemDN" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="xn:NotificationIRP"/>
            <element ref="xn:AlarmIRP"/>
            <element ref="xn:BasicCmIRP"/>
            <element ref="xn:BulkCmIRP"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="NotificationIRP">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="irpVersion" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="AlarmIRP">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="irpVersion" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

```

```

        </all>
      </complexType>
    </element>
  </sequence>
</extension>
</complexContent>
</complexType>
</element>

<element name="BasicCmIRP">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="irpVersion" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="BulkCmIRP">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="irpVersion" minOccurs="0"/>
              </all>
            </complexType>
          </element>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element name="VsDataContainer">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClassXmlType">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="vsDataType" minOccurs="0"/>
                <element name="vsDataFormatVersion" minOccurs="0"/>
                <element ref="xn:vsData" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

```

```
</extension>  
</complexContent>  
</complexType>  
</element>
```

```
<!-- VsDataContainer NRM class vsData attribute associated empty XML element -->
```

```
<element name="vsData">  
  <complexType/>  
</element>
```

```
</schema>
```

<p style="text-align: center;">End of Change in Clause Annex A End of Document</p>
--