

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): Generic NRM XML schema dependencies removal

Document for: Approval

Agenda Item: 7.5.3

Doc-1st-	Spec	CR	R	Ph	Subject	Cat	Ver	Doc-2nd-	Workite	Relation
SP-030288	32.615	008	-	Rel-5	Generic NRM XML schema dependencies removal	F	5.0.1	S5-036657	OAM-NIM	siblings
SP-030288	32.625	002	-	Rel-5	Generic NRM XML schema dependencies removal	F	5.0.0	S5-036653	OAM-NIM	siblings
SP-030288	32.635	002	-	Rel-5	Generic NRM XML schema dependencies removal	F	5.0.0	S5-036654	OAM-NIM	siblings
SP-030288	32.645	003	-	Rel-5	Generic NRM XML schema dependencies removal	F	5.0.0	S5-036655	OAM-NIM	siblings
SP-030288	32.655	003	-	Rel-5	Generic NRM XML schema dependencies removal	F	5.0.0	S5-036656	OAM-NIM	siblings

CHANGE REQUEST

⌘ **32.615 CR 008** ⌘ 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:	⌘ Generic NRM XML schema dependencies removal		
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:	⌘ Remove dependencies of the Generic NRM XML schema from Core, UTRAN and GERAN NRM XML schemas.		
Summary of change:	⌘ <ul style="list-style-type: none"> Transfer of imports of Core, UTRAN and GERAN NRM XML schemas from Generic NRM XML schema Renaming of XML derivation base type for all NRM class associated XML element types Update of extracts from XML schemas 		
Consequences if not approved:	⌘ Direct reuse of the R5 Generic NRM XML schema by 3GPP2 TSG-S would be jeopardized. This will lead to 3GPP2 creating its own XML specifications, not compliant to 3GPP specifications. In addition for 3GPP SA5 solely this CR also provides advantages as it removes dependencies between 3GPP SA5 XML TSs.		

Clauses affected:	⌘ 4.3A.2, 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;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;"> </td> </tr> </table>	Y	N		X		X	X		Other core specifications Test specifications O&M Specifications	⌘ 32.625, 32.635, 32.645, 32.655
Y	N										
	X										
	X										
X											
Other comments:	⌘ Associated with sibling CRs S5-036653, S5-036654, S5-036655, S5-036656. The XML schema file "configData.xsd" reflects the changes from this CR (only). This CR and its associated CRs do not in essence functionally modify the Bulk CM feature or the effective content of Bulk CM XML files. Notably, with exception of version identifiers of the related XML schemas, implementation of these CRs on the related XML TSs implies identical XML Bulk CM file instances as implied by current respective versions of these XML TSs.										

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"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

```

```

        <element ref="xn:ManagedElement"/>
        <element ref="xn:MeContext"/>
        <element ref="xn:ManagementNode"/>
        <element ref="xn:IRPAgent"/>
        <element ref="un:ExternalUtranCell"/>
        <element ref="gn:ExternalGsmCell"/>
        <element ref="xn:SubNetworkOptionallyContainedNrmClass"/>
    </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/32615-500.zip#configData"
    xmlns:xn=
"http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32625-500.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 Subclause 4.3A.2

Change in 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/32615-500.zip#configData"
  elementFormDefault="qualified"
  xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:xn=
    "http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32625-500.zip#genericNrm"
  xmlns:cn=
    "http://www.3gpp.org/ftp/specs/latest/rel-5/32\_series/32635-510.zip#coreNrm"
  xmlns:un=
    "http://www.3gpp.org/ftp/specs/latest/rel-5/32\_series/32645-510.zip#utranNrm"
  xmlns:gn=
    "http://www.3gpp.org/ftp/specs/latest/rel-5/32\_series/32655-510.zip#geranNrm"
>

  <import
    namespace=
      "http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32625-500.zip#genericNrm"
  />
  <import
    namespace=
      "http://www.3gpp.org/ftp/specs/latest/rel-5/32\_series/32635-510.zip#coreNrm"
  />
```

```

<import
  namespace=
  "http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32645-510.zip#utranNrm"
/>
<import
  namespace=
  "http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32655-510.zip#geranNrm"
/>

```

```

<!-- 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 Annex A End of Document

CHANGE REQUEST

⌘ **32.655 CR 003** ⌘ 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:	⌘ Generic NRM XML schema dependencies removal		
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:	⌘ Remove dependencies of the Generic NRM XML schema from Core, UTRAN and GERAN NRM XML schemas.		
Summary of change:	⌘ <ul style="list-style-type: none"> Addition of membership to substitution group headed by XML element type "SubNetworkOptionallyContainedNrmClass" on all XML element types associated to NRM classes contained under NRM class "SubNetwork" Addition of membership to substitution group headed by XML element type "ManagedElementOptionallyContainedNrmClass" on all XML element types associated to NRM classes contained under NRM class "ManagedElement" Renaming of XML derivation base type for all NRM class associated XML element types 		
Consequences if not approved:	⌘ Direct reuse of the R5 Generic NRM XML schema by 3GPP2 TSG-S would be jeopardized. This will lead to 3GPP2 creating its own XML specifications, not compliant to 3GPP specifications. In addition for 3GPP SA5 solely this CR also provides advantages as it removes dependencies between 3GPP SA5 XML TSs.		

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> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </table> Other core specifications ⌘ Test specifications O&M Specifications 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"/>
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:	⌘ Associated with sibling CRs S5-036653, S5-036654, S5-036655, S5-036657. The XML schema file "geranNrm.xsd" reflects the changes from this CR (only). .../...								

.../...

This CR and its associated CRs do not in essence functionally modify the Bulk CM feature or the effective content of Bulk CM XML files. Notably, with exception of version identifiers of the related XML schemas, implementation of these CRs on the related XML TSs implies identical XML Bulk CM file instances as implied by current respective versions of these XML TSs.

Change in 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-4/32_series/32655-500.zip#geranNrm"
  elementFormDefault="qualified"
  xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:xn=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32625-500.zip#genericNrm"
  xmlns:un=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32645-500.zip#utranNrm"
  xmlns:gn=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32655-500.zip#geranNrm"
>

  <import
    namespace=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32625-500.zip#genericNrm"
  />
  <import
    namespace=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32645-500.zip#utranNrm"
  />

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

  <element
    name="BssFunction"
    substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
  >
    <complexType>
      <complexContent>
        <extension base="xn:NrmClassXmlType">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="userLabel" minOccurs="0"/>
                </all>
              </complexType>
            </element>
            <choice minOccurs="0" maxOccurs="unbounded">
              <element ref="gn:BtsSiteMgr"/>
              <element ref="xn:VsDataContainer"/>
            </choice>
          </sequence>
        </extension>
      </complexContent>
    </complexType>
  </element>
```

```

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

<element name="BtsSiteMgr">
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass<del>XmlType</del>">
        <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:NrmClass<del>XmlType</del>">
        <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"/>
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

```

```

        </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"
  substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass"
  >
  <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 Annex A
End of Document**

CHANGE REQUEST

⌘ **32.645 CR 003** ⌘ 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

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Work item code:	⌘ OAM-NIM	Date:	⌘ 23/05/2003
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	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:	⌘ Remove dependencies of the Generic NRM XML schema from Core, UTRAN and GERAN NRM XML schemas.		
Summary of change:	⌘ <ul style="list-style-type: none"> • Addition of membership to substitution group headed by XML element type "SubNetworkOptionallyContainedNrmClass" on all XML element types associated to NRM classes contained under NRM class "SubNetwork" • Addition of membership to substitution group headed by XML element type "ManagedElementOptionallyContainedNrmClass" on all XML element types associated to NRM classes contained under NRM class "ManagedElement" • Renaming of XML derivation base type for all NRM class associated XML element types • Removal of unnecessary suffix "Type" from all XML simple/complex types for all NRM attribute associated XML element types 		
Consequences if not approved:	⌘ Direct reuse of the R5 Generic NRM XML schema by 3GPP2 TSG-S would be jeopardized. This will lead to 3GPP2 creating its own XML specifications, not compliant to 3GPP specifications. In addition for 3GPP SA5 solely this CR also provides advantages as it removes dependencies between 3GPP SA5 XML TSs.		

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> Other core specifications Test specifications O&M Specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	⌘	32.615, 32.625, 32.635, 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:	⌘ Associated with sibling CRs S5-036653, S5-036654, S5-036656, S5-036657. The XML schema file "utranNrm.xsd" reflects the changes from this CR (only). .../...										

.../...

This CR and its associated CRs do not in essence functionally modify the Bulk CM feature or the effective content of Bulk CM XML files. Notably, with exception of version identifiers of the related XML schemas, implementation of these CRs on the related XML TSs implies identical XML Bulk CM file instances as implied by current respective versions of these XML TSs.

Change in 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-4/32_series/32645-500.zip#utranNrm"
  elementFormDefault="qualified"
  xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:xn=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32625-500.zip#genericNrm"
  xmlns:un=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32645-500.zip#utranNrm"
  xmlns:gn=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32655-500.zip#geranNrm"
>

  <import
    namespace=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32625-500.zip#genericNrm"
  />
  <import
    namespace=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32655-500.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"/>
        <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"
  substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
  >
  <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"
  substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
  >
  <complexType>
    <complexContent>
      <extension base="xn:NrmClass<del>XmlType</del>">
        <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:NrmClass<del>XmlType</del>">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="userLabel" minOccurs="0"/>
                <element name="cId" type="un:cId<del>Type</del>" minOccurs="0"/>
                <element
                  name="localCellId"
                  type="un:localCellId<del>Type</del>"
                  minOccurs="0"
                />
                <element
                  name="uarfcnUl"
                  type="un:uarfcnDl<del>Type</del>"

```

```

        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:NrmClass<del>XmlType</del>">
        <sequence>
          <element name="attributes" minOccurs="0">
            <complexType>
              <all>
                <element name="relationType" minOccurs="0"/>
                <element name="adjacentCell" minOccurs="0"/>
                <element
                  name="uarfcnUl"
                  type="un:uarfcnUl<del>Type</del>"
                  minOccurs="0"
                />
                <element
                  name="uarfcnDl"
                  type="un:uarfcnUl<del>Type</del>"
                  minOccurs="0"
                />
                <element name="primaryScramblingCode" minOccurs="0"/>
                <element name="primaryCpichTxPower" minOccurs="0"/>
                <element
                  name="primaryScramblingCode"
                  type="un:primaryScramblingCode<del>Type</del>"
                  minOccurs="0"
                />
                <element
                  name="primaryCpichTxPower"
                  type="un:primaryCpichTxPower<del>Type</del>"
                  minOccurs="0"
                />
                <element name="lac" type="un:lac<del>Type</del>" minOccurs="0"/>
              </all>
            </complexType>
          </element>
          <choice minOccurs="0" maxOccurs="unbounded">
            <element ref="xn:VsDataContainer"/>
          </choice>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
</element>

<element
  name="ExternalUtranCell"
  substitutionGroup="xn:SubNetworkOptionallyContainedNrmClass"
>
  <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>

```

<p>End of Change in Annex A End of Document</p>
--

CHANGE REQUEST

⌘ **32.635 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:	⌘ Generic NRM XML schema dependencies removal		
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:	⌘ Remove dependencies of the Generic NRM XML schema from Core, UTRAN and GERAN NRM XML schemas.
Summary of change:	⌘ <ul style="list-style-type: none"> Addition of membership to substitution group headed by XML element type "ManagedElementOptionallyContainedNrmClass" on all XML element types associated to NRM classes contained under NRM class "ManagedElement" Renaming of XML derivation base type for all NRM class associated XML element types
Consequences if not approved:	⌘ Direct reuse of the R5 Generic NRM XML schema by 3GPP2 TSG-S would be jeopardized. This will lead to 3GPP2 creating its own XML specifications, not compliant to 3GPP specifications. In addition for 3GPP SA5 solely this CR also provides advantages as it removes dependencies between 3GPP SA5 XML TSs.

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;"> </td> <td style="width: 20px;">X</td> </tr> <tr> <td style="width: 20px;"> </td> <td style="width: 20px;">X</td> </tr> <tr> <td style="width: 20px;">X</td> <td style="width: 20px;"> </td> </tr> </table> Other core specifications ⌘ Test specifications O&M Specifications 32.615, 32.625, 32.645, 32.655	Y	N		X		X	X	
Y	N								
	X								
	X								
X									
Other comments:	⌘ Associated with sibling CRs S5-036653, S5-036655, S5-036656, S5-036657. The XML schema file "coreNrm.xsd" reflects the changes from this CR (only). This CR and its associated CRs do not in essence functionally modify the Bulk CM feature or the effective content of Bulk CM XML files. Notably, with exception of version identifiers of the related XML schemas, implementation of these CRs on the related XML TSs implies identical XML Bulk CM file instances as implied by current respective versions of these XML TSs.								

Change in 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-4/32_series/32635-500.zip#coreNrm"
  elementFormDefault="qualified"
  xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:xn=
  "http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32625-500.zip#genericNrm"
  xmlns:cn=
  "http://www.3gpp.org/ftp/specs/latest/rel-5/32_series/32635-510.zip#coreNrm"
>

  <import
    namespace=
    "http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32625-500.zip#genericNrm"
    />

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

  <element
    name="MscFunction"
    substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
  >
    <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"
    substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
```

```

| <_>
| <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"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
| >
| <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"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
| >
| <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"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"

```



```

| <_>
| <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="SmsIwmscFunction"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
| >
| <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"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
| >
| <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"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"

```

```

| <_>
| <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"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
| >
| <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"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
| >
| <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"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"

```

```

| <_>
| <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"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
| >
| <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="GmlcFunction"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
| >
| <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"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"

```

```

| <_>
| <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"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
| >
| <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="CbfcFunction"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
| >
| <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"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"

```

```

| <_>
|   <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"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
| >
|   <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"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
| >
|   <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="IwfFunction"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"

```

```

| <_>
| <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"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
| >
| <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"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
| >
| <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"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"

```

```

| <_>
| <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"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
| >
| <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"
|   substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
| >
| <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 Annex A
End of Document

CHANGE REQUEST

⌘ **32.625 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:	⌘ Generic NRM XML schema dependencies removal		
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:	⌘ Remove dependencies of the Generic NRM XML schema from Core, UTRAN and GERAN NRM XML schemas.
Summary of change:	⌘ <ul style="list-style-type: none"> • Removal of namespace references to Core, UTRAN and GERAN NRM XML schemas • Transfer of imports of Core, UTRAN and GERAN NRM XML schemas to Bulk CM Configuration Data XML schema • Addition of abstract XML element type "SubNetworkOptionallyContainedNrmClass" as substitution group head for all XML element types associated to further NRM classes optionally contained under NRM class "SubNetwork" • Addition of abstract XML element type "ManagedElementOptionallyContainedNrmClass" as substitution group head for all XML element types associated to further NRM classes optionally contained under NRM class "ManagedElement" • Replacement of references to UTRAN and GERAN NRM XML element types associated to NRM classes contained under NRM class "SubNetwork" by a reference to substitution group head XML element type "SubNetworkOptionallyContainedNrmClass" • Replacement of references to Core, UTRAN and GERAN NRM XML element types associated to NRM classes contained under NRM class "ManagedElement" by a reference to substitution group head XML element type "ManagedElementOptionallyContainedNrmClass" • Renaming of XML derivation base type for all NRM class associated XML element types and removal of its abstract qualification
Consequences if not approved:	⌘ Direct reuse of the R5 Generic NRM XML schema by 3GPP2 TSG-S would be jeopardized. This will lead to 3GPP2 creating its own XML specifications, not compliant to 3GPP specifications. In addition for 3GPP SA5 solely this CR also provides advantages as it removes dependencies between 3GPP SA5 XML TSs.

.../...

.../...

Clauses affected:	⌘	4, annex A										
Other specs affected:	⌘	<table border="1"><tr><td>Y</td><td>N</td></tr><tr><td></td><td>X</td></tr><tr><td></td><td>X</td></tr><tr><td>X</td><td></td></tr></table>	Y	N		X		X	X		Other core specifications	⌘
		Y	N									
			X									
	X											
X												
		Test specifications										
		O&M Specifications	32.615, 32.635, 32.645, 32.655									
Other comments:	⌘	Associated with sibling CRs S5-036654, S5-036655, S5-036656, S5-036657. The XML schema file "genericNrm.xsd" reflects the changes from this CR (only). This CR and its associated CRs do not in essence functionally modify the Bulk CM feature or the effective content of Bulk CM XML files. Notably, with exception of version identifiers of the related XML schemas, implementation of these CRs on the related XML TSs implies identical XML Bulk CM file instances as implied by current respective versions of these XML TSs.										

Change in Clause 4

4 Structure and content of configuration data XML files

The overall description of the file format of configuration data XML files is provided by 3GPP TS 32.615 [3].

Annex A of the present document defines the NRM-specific XML schema `genericNrm.xsd` for the Generic Network Resources IRP NRM defined in 3GPP TS 32.622 [1].

XML schema `genericNrm.xsd` explicitly declares NRM-specific XML element types for the related NRM.

The definition of those NRM-specific XML element types complies with the generic mapping rules defined in 3GPP TS 32.615 [3], with the following exception: as defined in 3GPP TS 32.615 [3], the `vsData` XML element type has an empty XML content.

Additionally, XML schema `genericNrm.xsd` also provides the following global XML declarations and definitions:

- XML complex type `NrmClass` ~~XMLType~~: derivation base type (see [5], [6] and [7]) for all NRM class associated XML element types (see 3GPP TS 32.615 [3])
- XML element type `vsData`: derivation base type (see [5], [6] and [7]) for all vendor-specific XML element types (see 3GPP TS 32.615 [3])
- [XML element type `SubNetworkOptionallyContainedNrmClass`: substitution group head \(see \[5\], \[6\] and \[7\]\) for all XML element types associated to further NRM classes optionally contained under `SubNetwork NRM class`](#)
- [XML element type `ManagedElementOptionallyContainedNrmClass`: substitution group head \(see \[5\], \[6\] and \[7\]\) for all XML element types associated to further NRM classes optionally contained under `ManagedElement NRM class`.](#)

End of Change in Clause 4

Change in 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-4/32_series/32625-500.zip#genericNrm"
  elementFormDefault="qualified"
  xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:xn=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32625-500.zip#genericNrm"
```

```


--xmlns:cn=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32635-500.zip#coreNrm"
--xmlns:un=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32645-500.zip#utranNrm"
--xmlns:gn=
"http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32655-500.zip#geranNrm"
>

<import
  namespace=
  "http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32635-500.zip#coreNrm"
/>
<import
  namespace=
  "http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32645-500.zip#utranNrm"
/>
<import
  namespace=
  "http://www.3gpp.org/ftp/specs/latest/rel-4/32_series/32655-500.zip#geranNrm"
/>

<!-- Abstract base Base XML 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"/>

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

```

```

    </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"/>
            <del><element ref="un:RncFunction"/></del>
            <del><element ref="un:NodeBFunction"/></del>
            <del><element ref="gn:BssFunction"/></del>
            <del><element ref="cn:MscFunction"/></del>
            <del><element ref="cn:HlrFunction"/></del>
            <del><element ref="cn:VlrFunction"/></del>
            <del><element ref="cn:AucFunction"/></del>
            <del><element ref="cn:EirFunction"/></del>
            <del><element ref="cn:SmsIwmscFunction"/></del>
            <del><element ref="cn:SmsGmscFunction"/></del>
            <del><element ref="cn:GmscFunction"/></del>
            <del><element ref="cn:SgsnFunction"/></del>
            <del><element ref="cn:GgsnFunction"/></del>
            <del><element ref="cn:BgFunction"/></del>
            <del><element ref="cn:SmIcFunction"/></del>
            <del><element ref="cn:GmlcFunction"/></del>
            <del><element ref="cn:SefFunction"/></del>
            <del><element ref="cn:SrfFunction"/></del>
            <del><element ref="cn:CbcFunction"/></del>
            <del><element ref="cn:CgfFunction"/></del>
            <del><element ref="cn:MgwFunction"/></del>
            <del><element ref="cn:GmscServerFunction"/></del>
            <del><element ref="cn:IwfFunction"/></del>
            <del><element ref="cn:MnpSrfFunction"/></del>
            <del><element ref="cn:NpdbFunction"/></del>
            <del><element ref="cn:SgwFunction"/></del>
            <del><element ref="cn:SsfFunction"/></del>
            <del><element ref="cn:BsFunction"/></del>
            <del><element ref="xn:ManagedElementOptionallyContainedNrmClass"/></del>
          </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>
          <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>

<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:NrmClass<del>XmlType</del>">
                <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>

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

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

<!--
    Abstract head XML element for all XML elements associated to further
    NRM classes optionally contained under SubNetwork NRM class
-->

    <element
        name="SubNetworkOptionallyContainedNrmClass"
        type="xn:NrmClass"
        abstract="true"
    />

<!--
    Abstract head XML element for all XML elements associated to further
    NRM classes optionally contained under ManagedElement NRM class
-->

    <element
        name="ManagedElementOptionallyContainedNrmClass"
        type="xn:NrmClass"
        abstract="true"
    />

</schema>

```


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