Source:	SA5 (Telecom Management)
Title:	Rel-6 CR 32.645 (CM UTRAN network resources IRP Bulk CM XML)
Document for:	Decision
Agenda Item:	7.5.3

Doc-1st-	Spec	CR	R	Phas	Subject	Cat	Ver	Doc-2nd-	Workitem
SP-040256	32.645	011	-	Rel-6	Add XML definitions for support of TDD modes	B	5.4.0	S5-048473	OAM-NIM

CR-Form-v7

CHANGE REQUEST

| ⌘ | **32.645** CR **011** | ⌘**rev** | **-** | ⌘ | Current version: | **5.4.0** | ⌘ |

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

Proposed change affects: UICC apps⌘ ☐   ME ☐   Radio Access Network **X**   Core Network ☐

Title:	⌘	Add XML definitions for support of TDD modes
Source:	⌘	**SA5** (CATT – Yunzhong Luo – luoyunzhong@datangmobile.cn) Nortel Networks – Brigitte Faouën – bfaouen@nortelnetworks.com)
Work item code:	⌘	OAM-NIM **Date:** ⌘ 14/05/2004

Category:	⌘ **B**	**Release:** ⌘ Rel-6

Use one of the following categories:	*Use one of the following releases:*
F *(correction)*	*2* *(GSM Phase 2)*
A *(corresponds to a correction in an earlier release)*	*R96* *(Release 1996)*
B *(addition of feature),*	*R97* *(Release 1997)*
C *(functional modification of feature)*	*R98* *(Release 1998)*
D *(editorial modification)*	*R99* *(Release 1999)*
Detailed explanations of the above categories can	*Rel-4* *(Release 4)*
be found in 3GPP TR 21.900.	*Rel-5* *(Release 5)*
	Rel-6 *(Release 6)*

Reason for change:	⌘	Release 6 additions for support of both TDD and FDD modes
Summary of change:	⌘	XML additions for support of both TDD and FDD modes according to the corresponding changes in the IS
Consequences if not approved:	⌘	

Clauses affected:	⌘	1, annex A, annex B

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

Other comments:	⌘	This CR is dependent on parent CR for 32.642 (the approved CR SP-040129 and S5-048474)

1   Scope

The present document provides the NRM-specific part related to the UTRAN Network Resources IRP NRM [1] of the XML file format definition for the Bulk Configuration Management IRP IS [2].

The main part of this XML file format definition is provided by 3GPP TS 32.615 [3].

Bulk CM XML file formats are based on XML [4], XML Schema [5] [6] [7] and XML Namespace [8] standards.

This File Format Definition specification is related to 3GPP TS 32.642 (V~~5.3.X~~6.1~~0~~.X).

End of Change in Clause 1

Change in Annex A

Annex A (normative): Configuration data file NRM-specific XML schema (file name "`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-56/32_series/32645-
540600.zip#utranNrm"
  elementFormDefault="qualified"
  xmlns="http://www.w3.org/2001/XMLSchema"
  xmlns:xn=
"http://www.3gpp.org/ftp/specs/latest/rel-56/32_series/32625-
520610.zip#genericNrm"
  xmlns:un=
"http://www.3gpp.org/ftp/specs/latest/rel-56/32_series/32645-
540600.zip#utranNrm"
  xmlns:gn=
"http://www.3gpp.org/ftp/specs/latest/rel-56/32_series/32655-
540600.zip#geranNrm"
>

  <import
    namespace=
"http://www.3gpp.org/ftp/specs/latest/rel-56/32_series/32625-
520610.zip#genericNrm"
  />
  <import
    namespace=
```

```
"http://www.3gpp.org/ftp/specs/latest/rel-56/32_series/32655-
540600.zip#geranNrm"
  />

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

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

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

  <simpleType name="uarfcnDl">
    <union>
      <simpleType>
        <restriction base="integer">
          <minInclusive value="96620"/>
          <maxInclusive value="9938"/>
        </restriction>
      </simpleType>
      <simpleType>
        <restriction base="integer">
          <minInclusive value="10562"/>
          <maxInclusive value="1083816383"/>
        </restriction>
      </simpleType>
    </union>
  </simpleType>

  <simpleType name="uarfcnUl">
    <union>
      <simpleType>
        <restriction base="integer">
          <minInclusive value="92620"/>
          <maxInclusive value="9538"/>
        </restriction>
      </simpleType>
      <simpleType>
        <restriction base="integer">
          <minInclusive value="9612"/>
          <maxInclusive value="988816383"/>
        </restriction>
      </simpleType>
    </union>
  </simpleType>

  <simpleType name="uarfcnAnyMode">
    <restriction base="integer">
      <minInclusive value="0"/>
      <maxInclusive value="16383"/>
    </restriction>
  </simpleType>

  <simpleType name="primaryScramblingCode">
    <restriction base="integer">
```

```xml
      <minInclusive value="0"/>
      <maxInclusive value="511"/>
    </restriction>
</simpleType>

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

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

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

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

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

<simpleType name="lac">
 <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="rac">
```

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

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

      <complexType name="uraList">
        <sequence>
          <element name="ura" minOccurs="1" maxOccurs="8">
            <simpleType>
              <restriction base="integer">
                <minInclusive value="0"/>
                <maxInclusive value="65535"/>
              </restriction>
            </simpleType>
          </element>
        </sequence>
      </complexType>

      <simpleType name="cellMode">
        <restriction base="string">
          <enumeration value="FDDMode"/>
          <enumeration value="3-84McpsTDDMode"/>
          <enumeration value="1-28McpsTDDMode"/>
        </restriction>
      </simpleType>

      <simpleType name="uarfcn">
        <restriction base="integer">
          <minInclusive value="0"/>
          <maxInclusive value="16383"/>
        </restriction>
      </simpleType>

      <simpleType name="cellParameterId">
        <restriction base="integer">
          <minInclusive value="0"/>
          <maxInclusive value="127"/>
        </restriction>
      </simpleType>

      <simpleType name="primaryCcpchPower">
        <restriction base="decimal">
          <fractionDigits value="1"/>
          <minInclusive value="-15"/>
          <maxInclusive value="+40"/>
        </restriction>
      </simpleType>

      <simpleType name="dwPchPower">
        <restriction base="decimal">
          <fractionDigits value="1"/>
          <minInclusive value="-15"/>
          <maxInclusive value="+40"/>
        </restriction>
      </simpleType>
```

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

  <complexType name="timeSlotList">
    <sequence>
      <element name="timeSlot" maxOccurs="15">
        <complexType>
          <all>
            <element name="timeSlotId" minOccurs="1">
              <simpleType name="timeSlotId">
  <union>
    <simpleType>
      <restriction base="integer">
        <minInclusive value="0"/>
        <maxInclusive value="6"/>
      </restriction>
    </simpleType>
    <simpleType>
                <restriction base="integer">
                  <minInclusive value="0"/>
                  <maxInclusive value="14"/>
                </restriction>
    </simpleType>
  </union>
              </simpleType>
            </element>
            <element name="timeSlotDirection" minOccurs="1">
              <simpleType name="timeSlotDirection">
                <restriction base="string">
                  <enumeration value="UL"/>
                  <enumeration value="DL"/>
                </restriction>
              </simpleType>
            </element>
            <element name="timeSlotStatus" minOccurs="1">
              <simpleType name="timeSlotStatus">
                <restriction base="string">
                  <enumeration value="Active"/>
                  <enumeration value="Not-Active"/>
                </restriction>
              </simpleType>
            </element>
          </all>
        </complexType>
      </element>
    </sequence>
  </complexType>

  <complexType name="timeSlot">
    <all>
      <element name="timeSlotId" type="un:timeSlotId" fixed="1"/>
      <element name="timeSlotDirection" type="un:timeSlotDirection" fixed="1"/>
      <element name="timeSlotStatus" type="un:timeSlotStatus" fixed="1"/>
    </all>
  </complexType>

  <simpleType name="timeSlotList">
```

```xml
    <list itemType="timeSlot"/>
  </simpleType>

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

  <element
    name="RncFunction"
    substitutionGroup="xn:ManagedElementOptionallyContainedNrmClass"
  >
    <complexType>
      <complexContent>
        <extension base="xn:NrmClass">
          <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">
          <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">
```

```
<sequence>
  <element name="attributes" minOccurs="0">
    <complexType>
      <all>
        <element name="userLabel" minOccurs="0"/>
        <element name="cId" type="un:cId" minOccurs="0"/>
        <element
          name="localCellId"
          type="un:localCellId"
          minOccurs="0"
        />
        <element
          name="uarfcnUl"
          type="un:uarfcnDUlAnyMode"
          minOccurs="0"
        />
        <element
          name="uarfcnDl"
          type="un:uarfcnUDlAnyMode"
          minOccurs="0"
        />
        <element
          name="primaryScramblingCode"
          type="un:primaryScramblingCode"
          minOccurs="0"
        />
        <element
          name="primaryCpichTxPower"
          type="un:primaryCpichTxPower"
          minOccurs="0"
        />
        <element
          name="maximumTransmissionPower"
          type="un:maximumTransmissionPower"
          minOccurs="0"
        />
        <element
          name="primarySchPower"
          type="un:primarySchPower"
          minOccurs="0"
        />
        <element
          name="secondarySchPower"
          type="un:secondarySchPower"
          minOccurs="0"
        />
        <element name="bchPower"
          type="un:bchPower"
          minOccurs="0"
        />
        <element name="cellMode" type="un:cellMode" minOccurs="0"/>
        <element name="uarfcn" type="un:uarfcnAnyMode" minOccurs="0"/>
        <element
          name="cellParameterId"
          type="un:cellParameterId"
          minOccurs="0"
        />
        <element
          name="primaryCcpchPower"
          type="un:primaryCcpchPower"
          minOccurs="0"
        />
        <element
```

```xml
                          name="dwPchPower"
                          type="un:dwPchPower"
                          minOccurs="0"
                         />
                        <element
                          name="timeSlotList"
                          type="un:timeSlotList"
                          minOccurs="0"
                         />
                        <element name="schPower" type="un:schPower" minOccurs="0"/>
                        <element name="lac" type="un:lac" minOccurs="0"/>
                        <element name="rac" type="un:rac" minOccurs="0"/>
                        <element name="sac" type="un:sac" minOccurs="0"/>
                        <element name="uraList" type="un:uraList" 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:NrmClass">
                <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>
                  <choice minOccurs="0" maxOccurs="unbounded">
                    <element ref="xn:VsDataContainer"/>
                  </choice>
                </sequence>
              </extension>
            </complexContent>
          </complexType>
        </element>

        <element name="UtranRelation">
          <complexType>
            <complexContent>
              <extension base="xn:NrmClass">
                <sequence>
                  <element name="attributes" minOccurs="0">
                    <complexType>
                      <all>
                        <element name="adjacentCell" minOccurs="0"/>
                        <element name="cellMode" type="un:cellMode" minOccurs="0"/>
                        <element
```

```
                    name="uarfcnUl"
                    type="un:uarfcnUlAnyMode"
                    minOccurs="0"
                  />
                  <element
                    name="uarfcnDl"
                    type="un:uarfcnUDlAnyMode"
                    minOccurs="0"
                  />
                  <element
                    name="primaryScramblingCode"
                    type="un:primaryScramblingCode"
                    minOccurs="0"
                  />
                  <element
                    name="primaryCpichTxPower"
                    type="un:primaryCpichTxPower"
                    minOccurs="0"
                  />
                  <element name="lac" type="un:lac" minOccurs="0"/>
                  <element name="uarfcn" type="un:uarfcnAnyMode" minOccurs="0"/>
                  <element
                    name="cellParameterId"
                    type="un:cellParameterId"
                    minOccurs="0"
                  />
                  <element
                    name="primaryCcpchPower"
                    type="un:primaryCcpchPower"
                    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:NrmClass">
          <sequence>
            <element name="attributes" minOccurs="0">
              <complexType>
                <all>
                  <element name="userLabel" minOccurs="0"/>
                  <element name="cId" type="un:cId" minOccurs="0"/>
                  <element name="mcc" minOccurs="0"/>
                  <element name="mnc" minOccurs="0"/>
                  <element name="rncId" minOccurs="0"/>
                  <element name="cellMode" type="un:cellMode" minOccurs="0"/>
                  <element
                    name="uarfcnUl"
                    type="un:uarfcnUlAnyMode"
```

```
                 minOccurs="0"
               />
               <element
                 name="uarfcnDl"
                 type="un:uarfcnDlAnyMode"
                 minOccurs="0"
               />
               <element
                 name="primaryScramblingCode"
                 type="un:primaryScramblingCode"
                 minOccurs="0"
               />
               <element
                 name="primaryCpichTxPower"
                 type="un:primaryCpichTxPower"
                 minOccurs="0"
               />
               <element name="uarfcn" type="un:uarfcnAnyMode" minOccurs="0"/>
               <element
                 name="cellParameterId"
                 type="un:cellParameterId"
                 minOccurs="0"
               />
               <element
                 name="primaryCcpchPower"
                 type="un:primaryCcpchPower"
                 minOccurs="0"
               />
               <element name="lac" type="un:lac" minOccurs="0"/>
               <element name="rac" type="un:rac" minOccurs="0"/>
             </all>
           </complexType>
         </element>
         <choice minOccurs="0" maxOccurs="unbounded">
           <element ref="xn:VsDataContainer"/>
         </choice>
       </sequence>
     </extension>
   </complexContent>
 </complexType>
</element>

</schema>
```

End of Change in Annex A

Change in Annex B

Annex B (normative): XML schema electronic files

The normative XML schema electronic files corresponding to the present document, if available, are contained in archive 32645-540600-XMLSchema.zip which accompanies the present document.

End of Change in Annex B
End of Document

Annex C (informative):
Change history

Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
					Change history		
Jun 2002	S_16	SP-020298	--	--	Submitted to TSG SA #16 for Information	1.0.0	
Sep 2002	S_17	SP-020462	--	--	Submitted to TSG SA #17 for Approval	2.0.0	5.0.0
Jun 2003	S_20	SP-030283	001	--	Deletion of UTRAN attribute relationType in XML Schema	5.0.0	5.1.0
Jun 2003	S_20	SP-030287	002	--	Correction of UTRAN NRM XML schema namespace URIs	5.0.0	5.1.0
Jun 2003	S_20	SP-030288	003	--	Generic NRM XML schema dependencies removal	5.0.0	5.1.0
Jun 2003	S_20	SP-030285	004	--	Remove UTRAN NRM XML schema duplicate MOC attribute XML declarations	5.0.0	5.1.0
Sep 2003	S_21	SP-030418	005	--	Inclusion of External BSS Function in GERAN XML Schema – impacts on 32.645 (UTRAN XML Schema) - Alignment with 32.652/655	5.1.0	5.2.0
Oct 2003	--	--	--	--	Attached to this TS the normative XML schema electronic files corresponding to Sept 2003 TS 32.645	5.2.0	5.2.1
Dec 2003	S_22	SP-030646	006	--	Correction of the number of possible URAs from 1 to 8	5.2.1	5.3.0
Mar 2004	S_23	SP-040131	007	--	Add the capability to contain instances of VsDataContainer to some MOs - Align with the IS 32.642	5.3.0	5.4.0