

ETSI TS 132 665 V7.0.2 (2007-07)

Technical Specification

**Digital cellular telecommunications system (Phase 2+);
Universal Mobile Telecommunications System (UMTS);
Telecommunication management;
Configuration Management (CM);
Kernel CM Integration Reference Point (IRP):
eXtensible Markup Language (XML) definitions
(3GPP TS 32.665 version 7.0.2 Release 7)**



Reference

RTS/TSGS-0532665v702

Keywords

GSM, UMTS

ETSI

650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
Sous-Préfecture de Grasse (06) N° 7803/88

Important notice

Individual copies of the present document can be downloaded from:

<http://www.etsi.org>

The present document may be made available in more than one electronic version or in print. In any case of existing or perceived difference in contents between such versions, the reference version is the Portable Document Format (PDF). In case of dispute, the reference shall be the printing on ETSI printers of the PDF version kept on a specific network drive within ETSI Secretariat.

Users of the present document should be aware that the document may be subject to revision or change of status. Information on the current status of this and other ETSI documents is available at

<http://portal.etsi.org/tb/status/status.asp>

If you find errors in the present document, please send your comment to one of the following services:

http://portal.etsi.org/chaicor/ETSI_support.asp

Copyright Notification

No part may be reproduced except as authorized by written permission.
The copyright and the foregoing restriction extend to reproduction in all media.

© European Telecommunications Standards Institute 2007.
All rights reserved.

DECT™, PLUGTESTS™ and UMTS™ are Trade Marks of ETSI registered for the benefit of its Members.
TIPHON™ and the TIPHON logo are Trade Marks currently being registered by ETSI for the benefit of its Members.
3GPP™ is a Trade Mark of ETSI registered for the benefit of its Members and of the 3GPP Organizational Partners.

Intellectual Property Rights

IPRs essential or potentially essential to the present document may have been declared to ETSI. The information pertaining to these essential IPRs, if any, is publicly available for **ETSI members and non-members**, and can be found in ETSI SR 000 314: *"Intellectual Property Rights (IPRs); Essential, or potentially Essential, IPRs notified to ETSI in respect of ETSI standards"*, which is available from the ETSI Secretariat. Latest updates are available on the ETSI Web server (<http://webapp.etsi.org/IPR/home.asp>).

Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in ETSI SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

This Technical Specification (TS) has been produced by ETSI 3rd Generation Partnership Project (3GPP).

The present document may refer to technical specifications or reports using their 3GPP identities, UMTS identities or GSM identities. These should be interpreted as being references to the corresponding ETSI deliverables.

The cross reference between GSM, UMTS, 3GPP and ETSI identities can be found under <http://webapp.etsi.org/key/queryform.asp>.

Contents

Intellectual Property Rights	2
Foreword.....	2
Foreword.....	4
Introduction	4
1 Scope	5
2 References	5
3 Definitions and abbreviations.....	5
3.1 Definitions	5
3.2 Abbreviations	5
4 Kernel CM IRP XML Definitions.....	6
4.1 Kernel CM IRP XML Definitions	6
4.2 Kernel CM IRP XML Schema (file name "kernelCMIRPNotif.xsd").....	8
Annex A (informative): XML schema electronic files.....	11
Annex B (informative): Change history	12
History	13

Foreword

This Technical Specification has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

- x the first digit:
 - 1 presented to TSG for information;
 - 2 presented to TSG for approval;
 - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

Introduction

The present document is part of a TS-family covering the 3rd Generation Partnership Project: Technical Specification Group Services and System Aspects; Telecommunication management; as identified below:

32.661	Configuration Management (CM); Kernel CM requirements
32.662	Configuration Management (CM); Kernel CM Information Service (IS)
32.663	Configuration Management (CM); Kernel CM Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) Solution Set (SS)
32.665	Configuration Management (CM); Kernel CM Integration Reference Point (IRP): eXtensible Markup Language (XML) definitions
32.667:	"Configuration Management (CM); Kernel CM Integration Reference Point (IRP): Simple Object Access Protocol (SOAP) Solution Set (SS)".

Configuration Management (CM), in general, provides the operator with the ability to assure correct and effective operation of the 3G network as it evolves. CM actions have the objective to control and monitor the actual configuration on the Network Elements (NEs) and Network Resources (NRs), and they may be initiated by the operator or by functions in the Operations Systems (OSs) or NEs.

CM actions may be requested as part of an implementation programme (e.g. additions and deletions), as part of an optimisation programme (e.g. modifications), and to maintain the overall Quality of Service (QoS). The CM actions are initiated either as single actions on single NEs of the 3G network, or as part of a complex procedure involving actions on many resources/objects in one or several NEs.

1 Scope

The present document specifies the XML Definitions for the Kernel CM Integration Reference Point (IRP) as it applies to Itf-N, in accordance with Kernel CM IRP IS definitions [3] as well as Notification Log IRP XML Definitions [4].

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TS 32.101: "Telecommunication management; Principles and high level requirements".
- [2] 3GPP TS 32.102: "Telecommunication management; Architecture".
- [3] 3GPP TS 32.662: "Telecommunication management; Configuration Management (CM); Kernel CM: Information Service (IS)".
- [4] 3GPP TS 32.335: "Telecommunication management; Notification Log (NL) Integration Reference Point (IRP): eXtensible Markup Language (XML) solution definitions".
- [5] 3GPP TS 32.331: "Telecommunication management; Notification Log (NL) Integration Reference Point (IRP): Requirements".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TS 32.101 [1], 3GPP TS 32.102 [2], and 3GPP TS 32.331 [5] apply.

3.2 Abbreviations

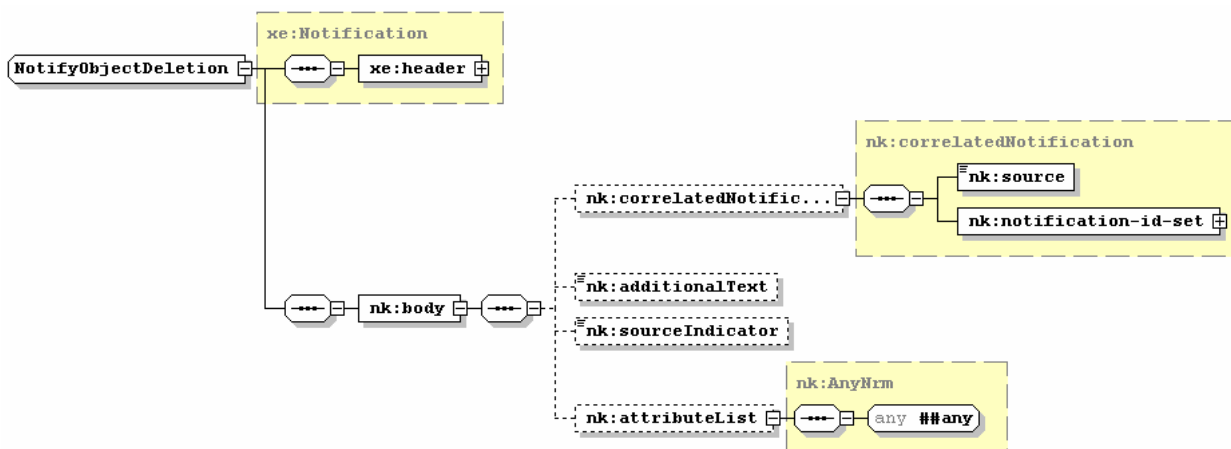
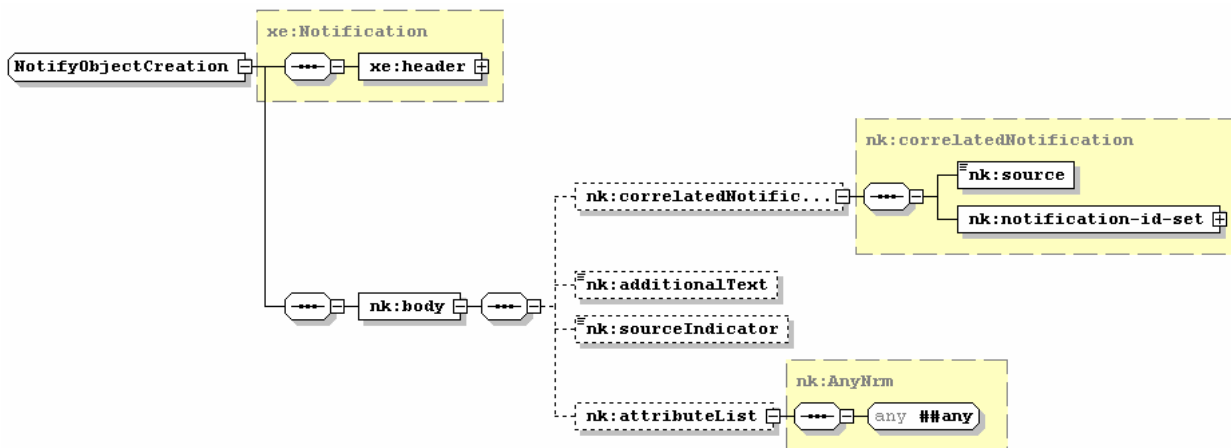
For the purposes of the present document, the following abbreviations apply:

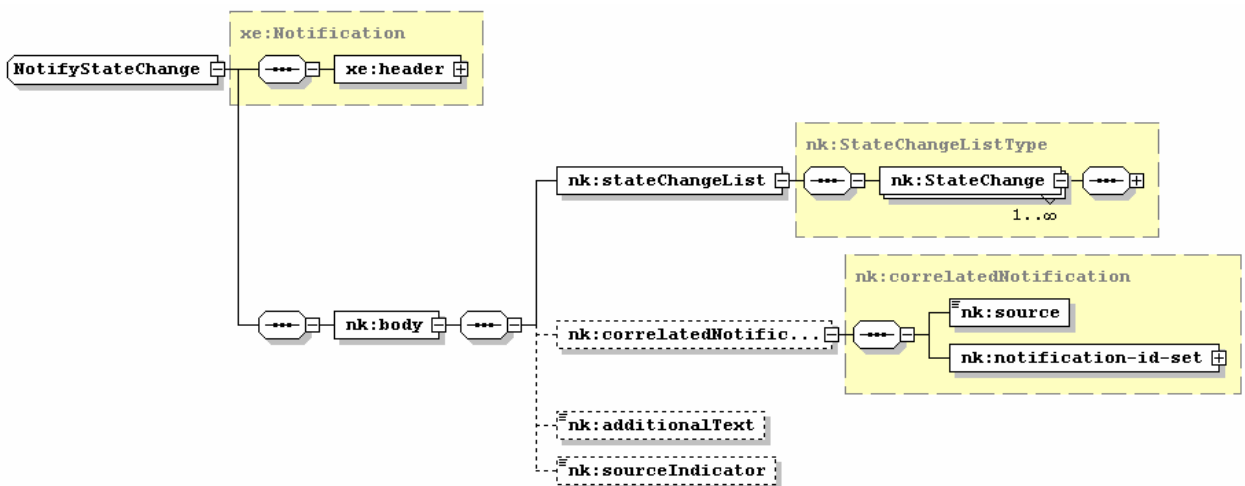
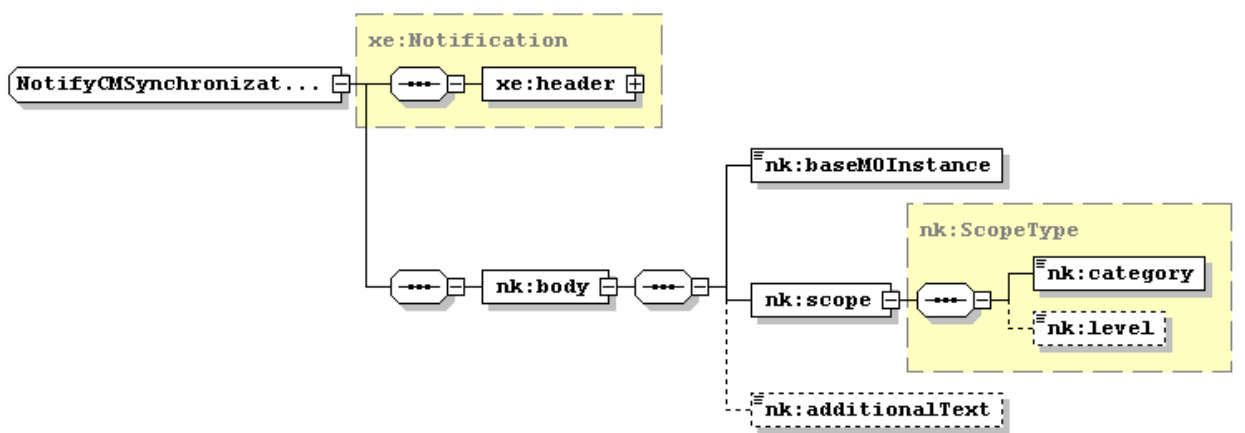
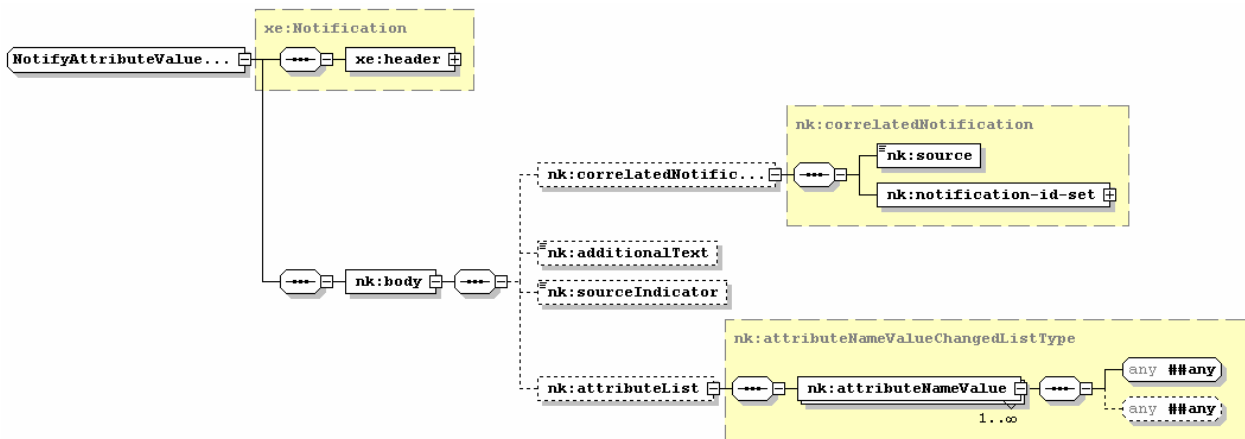
IRP	Integration Reference Point
IS	Information Service
NL	Notification Log
UML	Unified Modelling Language
IRP	Integration Reference Point
NRM	Network Resource Model
XML	eXtensible Markup Language

4 Kernel CM IRP XML Definitions

4.1 Kernel CM IRP XML Definitions

This section provides XML definitions of Kernel CM IRP notifications as defined in [3].





4.2 Kernel CM IRP XML Schema (file name "kernelCMIRPNotif.xsd")

```

<?xml version="1.0" encoding="UTF-8"?>
<schema xmlns="http://www.w3.org/2001/XMLSchema"
xmlns:nk="http://www.3gpp.org/ftp/specs/archive/32_series/32.665#kernelNtf"
xmlns:xe="http://www.3gpp.org/ftp/specs/archive/32_series/32.305#notification"
xmlns:sm="http://www.3gpp.org/ftp/specs/archive/32_series/32.675#stateManagementIRP"
xmlns:xn="http://www.3gpp.org/ftp/specs/archive/32_series/32.625#genericNrm"
targetNamespace="http://www.3gpp.org/ftp/specs/archive/32_series/32.665#kernelNtf"
elementFormDefault="qualified" attributeFormDefault="unqualified">
  <import namespace="http://www.3gpp.org/ftp/specs/archive/32_series/32.305#notification"/>
  <import namespace="http://www.3gpp.org/ftp/specs/archive/32_series/32.675#stateManagementIRP"/>
  <import namespace="http://www.3gpp.org/ftp/specs/archive/32_series/32.625#genericNrm"/>
  <complexType name="correlatedNotification">
    <sequence>
      <element name="source" type="xn:dn"/>
      <element name="notification-id-set">
        <complexType>
          <sequence>
            <element name="notification-id" type="xe:NotificationId" minOccurs="0"
maxOccurs="unbounded"/>
          </sequence>
        </complexType>
      </element>
    </sequence>
  </complexType>
  <simpleType name="SourceIndicatorType">
    <restriction base="string">
      <enumeration value="Resource_operation"/>
      <enumeration value="Management_operation"/>
      <enumeration value="Unknown"/>
    </restriction>
  </simpleType>
  <complexType name="attributeNameValueChangedListType">
    <sequence>
      <element name="attributeNameValue" maxOccurs="unbounded">
        <complexType>
          <sequence>
            <any namespace="##any" processContents="lax" id="newAttribute"/>
            <any namespace="##any" processContents="lax" id="oldAttribute" minOccurs="0"/>
          </sequence>
        </complexType>
      </element>
    </sequence>
  </complexType>
  <complexType name="ScopeType">
    <sequence>
      <element name="category" type="nk:ScopeCategoryType"/>
      <element name="level" type="unsignedLong" minOccurs="0"/>
    </sequence>
  </complexType>
  <simpleType name="ScopeCategoryType">
    <restriction base="string">
      <enumeration value="BASE_OBJECT_ONLY"/>
      <enumeration value="NTH_LEVEL_SUBORDINATES"/>
      <enumeration value="BASE_NTH_LEVEL"/>
      <enumeration value="BASE_ALL"/>
    </restriction>
  </simpleType>
  <complexType name="StateChangeListType">
    <sequence>
      <element name="StateChange" maxOccurs="unbounded">
        <complexType>
          <sequence>
            <any
namespace="http://www.3gpp.org/ftp/specs/archive/32_series/32.675#stateManagementIRP"
processContents="strict" id="newState"/>
            <any
namespace="http://www.3gpp.org/ftp/specs/archive/32_series/32.675#stateManagementIRP"
processContents="strict" id="oldState" minOccurs="0"/>
          </sequence>
        </complexType>
      </element>
    </sequence>
  </complexType>

```

```

</complexType>
<complexType name="AnyNrm">
  <sequence>
    <any namespace="##any" processContents="lax"/>
  </sequence>
</complexType>
<!-- notifyObjectCreation notification definition -->
<complexType name="NotifyObjectCreation">
  <complexContent>
    <extension base="xe:Notification">
      <sequence>
        <element name="body">
          <complexType>
            <sequence>
              <element name="correlatedNotification" type="nk:correlatedNotification"
minOccurs="0"/>
              <element name="additionalText" type="string" minOccurs="0"/>
              <element name="sourceIndicator" type="nk:SourceIndicatorType"
minOccurs="0"/>
              <element name="attributeList" type="nk:AnyNrm" minOccurs="0"/>
            </sequence>
          </complexType>
        </element>
      </sequence>
    </extension>
  </complexContent>
</complexType>
<!-- notifyObjectDeletion notification definition -->
<complexType name="NotifyObjectDeletion">
  <complexContent>
    <extension base="xe:Notification">
      <sequence>
        <element name="body">
          <complexType>
            <sequence>
              <element name="correlatedNotification" type="nk:correlatedNotification"
minOccurs="0"/>
              <element name="additionalText" type="string" minOccurs="0"/>
              <element name="sourceIndicator" type="nk:SourceIndicatorType"
minOccurs="0"/>
              <element name="attributeList" type="nk:AnyNrm" minOccurs="0"/>
            </sequence>
          </complexType>
        </element>
      </sequence>
    </extension>
  </complexContent>
</complexType>
<!-- notifyAttributeValueChange notification definition -->
<complexType name="NotifyAttributeValueChange">
  <complexContent>
    <extension base="xe:Notification">
      <sequence>
        <element name="body">
          <complexType>
            <sequence>
              <element name="correlatedNotification" type="nk:correlatedNotification"
minOccurs="0"/>
              <element name="additionalText" type="string" minOccurs="0"/>
              <element name="sourceIndicator" type="nk:SourceIndicatorType"
minOccurs="0"/>
              <element name="attributeList" type="nk:attributeNameValueChangedListType"
minOccurs="0"/>
            </sequence>
          </complexType>
        </element>
      </sequence>
    </extension>
  </complexContent>
</complexType>
<!-- notifyCMSynchronizationRecommended notification definition -->
<complexType name="NotifyCMSynchronizationRecommended">
  <complexContent>
    <extension base="xe:Notification">
      <sequence>
        <element name="body">
          <complexType>
            <sequence>

```

```

        <!--element name="baseMOClass" type="string"/-->
        <element name="baseMOInstance" type="string"/>
        <element name="scope" type="nk:ScopeType"/>
        <element name="additionalText" type="string" minOccurs="0"/>
    </sequence>
</complexType>
</element>
</sequence>
</extension>
</complexContent>
</complexType>
<!-- notifyStateChange notification definition -->
<complexType name="NotifyStateChange">
    <complexContent>
        <extension base="xe:Notification">
            <sequence>
                <element name="body">
                    <complexType>
                        <sequence>
                            <element name="stateChangeList" type="nk:StateChangeListType"/>
                            <element name="correlatedNotification" type="nk:correlatedNotification"
minOccurs="0"/>
                            <element name="additionalText" type="string" minOccurs="0"/>
                            <element name="sourceIndicator" type="nk:SourceIndicatorType"
minOccurs="0"/>
                        </sequence>
                    </complexType>
                </element>
            </sequence>
        </extension>
    </complexContent>
</complexType>
<element name="NotifyObjectCreation" type="nk:NotifyObjectCreation"/>
<element name="NotifyObjectDeletion" type="nk:NotifyObjectDeletion"/>
<element name="NotifyAttributeValueChange" type="nk:NotifyAttributeValueChange"/>
<element name="NotifyCMSynchronizationRecommended" type="nk:NotifyCMSynchronizationRecommended"/>
<element name="NotifyStateChange" type="nk:NotifyStateChange"/>
</schema>

```

Annex A (informative): XML schema electronic files

The electronic files corresponding to the XML schemas defined in the present document are available in native form in the following archive:

http://www.3gpp.org/ftp/specs/archive/32_series/32665/schema/32665-702-XMLSchema.zip

Annex B (informative): Change history

Change history								
Date	TSG #	TSG Doc.	CR	R	Subject/Comment	Cat	Old	New
Dec 2006	SA_34	SP-060743	--	--	Submitted to TSG SA#34 for Approval	--	1.0.0	7.0.0
Mar 2007	--	--	--	--	Delete reference to the 32.664 CMIP SS. Reason: SA#35 endorsed the SA5 decision to not propagate the CMIP Solution Sets to Rel-7 (TS 32.3x4, TS 32.4x4, TS 32.6x4)	--	7.0.0	7.0.1
Jul 2007	--	--	--	--	Added a filename for the XML code to be extracted from 4.2 Kernel CM IRP XML Schema (file name "kernelCMIRPNotif.xsd") and stored in http://www.3gpp.org/ftp/specs/archive/32_series/32665/schema/	--	7.0.1	7.0.2

History

Document history		
V7.0.1	March 2007	Publication (Withdrawn)
V7.0.2	July 2007	Publication