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**Digital cellular telecommunications system (Phase 2+);
Universal Mobile Telecommunications System (UMTS);
LTE;
Telecommunication management;
Partial Suspension of Itf-N Integration Reference Point (IRP);
eXtensible Markup Language (XML) file format definition
(3GPP TS 32.385 version 8.1.0 Release 8)**

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Foreword

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Contents

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:

32.381: Partial Suspension of Itf-N Integration Reference Point (IRP); Requirements

32.382: Partial Suspension of Itf-N Integration Reference Point (IRP); Information Service (IS)

32.383: Partial Suspension of Itf-N Integration Reference Point (IRP); Common Object Request Broker Architecture (CORBA) Solution Set

32.385: Partial Suspension of Itf-N Integration Reference Point (IRP); eXtensible Markup Language (XML) file format definition

The Itf-N interface is built up by a number of IRPs and a related Name Convention, which realise the functional capabilities over this interface. The basic structure of the IRPs is defined in TS 32.101 [1] and TS 32.102 [2].

Information of an event is carried in a notification. An IRPAgent (typically an EM or a NE) emits notifications (see TS 32.302 [3]. The IRPManager (typically a Network Management System) receives notifications. In certain scenarios floods of unwanted notifications including alarms would be sent to the IRP manager by network object instances. Thereby the interface and the management systems bear unnecessary load. Even worse: the Operator's awareness is drawn away from really urgent events.

1 Scope

The purpose of Partial Suspension of Itf-N IRP is to define an interface through which an IRPManager can suspend the forwarding of notifications via Itf-N which were generated in parts of the managed systems.

The present document is the eXtensible Markup Language (XML) file format definition of Partial Suspension of Itf-N IRP for the IRP whose semantics is specified in Partial Suspension of Itf-N IRP: Information Service (TS 32.382 [9]).

This XML Definitions specification defines the XML syntax of the Partial Suspension of Itf-N IRP.

This XML Definitions specification is related to 3GPP TS 32.382 V8.0.x.

2 References

The following documents contain provisions that, 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 32.302: "Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP): Information Service (IS)".

[4] W3C REC-xml-20001006: "Extensible Markup Language (XML) 1.0 (Second Edition)".

[5] W3C REC-xmlschema-0-20010502: "XML Schema Part 0: Primer".

[6] W3C REC-xmlschema-1-20010502: "XML Schema Part 1: Structures".

[7] W3C REC-xmlschema-2-20010502: "XML Schema Part 2: Datatypes".

[8] 3GPP TS 32.381: "Configuration Management (CM); Partial Suspension of Itf-N Integration Reference Point (IRP): Requirements".

[9] 3GPP TS 32.382: "Configuration Management (CM); Partial Suspension of Itf-N Integration Reference Point (IRP): Information Service (IS)".

[10] 3GPP TS 32.305: "Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP): eXtensible Markup Language (XML) definitions".

[11] 3GPP TS 32.615: "Telecommunication management; Configuration Management (CM); Bulk CM Integration Reference Point (IRP): eXtensible Markup Language (XML) definitions".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

Partial Suspension of Itf-N: See 3GPP TS 32.381 [8].

IRP: See 3GPP TS 32.101 [1].

IRPAgent: See 3GPP TS 32.102 [2].

IRPManager: See 3GPP TS 32.102 [2].

XML file: file containing an XML document.

XML document: composed of the succession of an optional XML declaration followed by a root XML element [4].

XML declaration: it specifies the version of XML being used, see [4].

XML element: has a type, is identified by a name, may have a set of XML attribute specifications and is either composed of the succession of an XML start-tag followed by the XML content of the XML element followed by an XML end-tag, or composed simply of an XML empty-element tag; each XML element may contain other XML elements, see [4].

empty XML element: having an empty XML content; an empty XML element still possibly has a set of XML attribute specifications; an empty XML element is either composed of the succession of an XML start-tag directly followed by an XML end-tag, or composed simply of an XML empty-element tag, see [4].

XML content (of an XML element): empty if the XML element is simply composed of an XML empty-element tag; otherwise the part, possibly empty, of the XML element between its XML start-tag and its XML end-tag, see [4].

XML start-tag: the beginning of a non-empty XML element is marked by an XML start-tag containing the name and the set of XML attribute specifications of the XML element, see [4].

XML end-tag: the end of a non-empty XML element is marked by an XML end-tag containing the name of the XML element, see [4].

XML empty-element tag: composed simply of an empty-element tag containing the name and the set of XML attribute specifications of the XML element, see [4].

XML attribute specification: has a name and a value, see [4].

DTD: defines structure and content constraints to be respected by an XML document to be valid with regard to this DTD, see [4].

XML schema: more powerful than a DTD, an XML schema defines structure and content constraints to be respected by an XML document to conform with this XML schema; through the use of XML namespaces several XML schemas can be used together by a single XML document; an XML schema is itself also an XML document that shall conform with the XML schema for XML schemas, see [5], [6] and [7].

XML namespace: enables qualifying element and attribute names used in XML documents by associating them with namespaces identified by different XML schemas, see [5], [6] and [7].

XML complex type: defined in an XML schema; cannot be directly used in an XML document; can be the concrete type or the derivation base type for an XML element type or for another XML complex type; ultimately defines constraints for an XML element on its XML attribute specifications and/or its XML content, see [5], [6] and [7].

XML element type: declared by an XML schema; can be directly used in an XML document; as the concrete type of an XML element, directly or indirectly defines constraints on its XML attribute specifications and/or its XML content; can also be the concrete type or the derivation base type for another XML element type, see [5], [6] and [7].

3.2 Abbreviations

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

EM	Element Manager
IRP	Integration Reference Point
IS	Information Service (see 3GPP TS 32.101 [1])
Itf-N	Interface N
NE	Network Element

XML eXtensible Mark-up Language

4 Structure and content of configuration data XML files

Annex A of the present document defines the Partial Suspension of Itf-N-specific XML schema and element types in `partialSuspensionOfItfN.xsd` which shall be used for the `notifyChangeOfPartialSuspensionOfItfN` notification defined in 3GPP TS 32.382 [9].

4.1 Global structure

See 3GPP TS 32.615 [11].

The following XML namespaces are potentially used in Partial Suspension of Itf-N XML files:

- Partial Suspension of Itf-N for CM data files are associated with XML schema `partialSuspensionOfItfN.xsd` (see Annex A.1);

Annex A (normative): Partial Suspension of Itf-N specific data file XML schemas

A.1 Partial Suspension of Itf-N specific XML schemas (file name "partialSuspensionOfItfN.xsd")

```
<?xml version="1.0" encoding="UTF-8"?>
<!--
    3GPP TS 32.385 Partial Suspension of Itf-N XML Schema
    partialSuspensionOfItfN.xsd
-->
<schema
xmlns:xps="http://www.3gpp.org/ftp/specs/archive/32_series/32.385#partialSuspensionOfItfN"
xmlns:xe="http://www.3gpp.org/ftp/specs/archive/32_series/32.305#notification"
xmlns:nk="http://www.3gpp.org/ftp/specs/archive/32_series/32.665#kernelNtf"

xmlns="http://www.w3.org/2001/XMLSchema"
targetNamespace="http://www.3gpp.org/ftp/specs/archive/32_series/32.385#partialSuspensionOfItfN"
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/32.665#kernelNtf"/>


<!-- XML types specific for partial suspension of Itf-N -->

<simpleType name="TypeOfChange">
  <restriction base="string">
    <enumeration value="OnsetOfPartialSuspension"/>
    <enumeration value="RemovalOfPartialSuspension"/>
  </restriction>
</simpleType>

<simpleType name="PartialSuspensionId">
  <restriction base="long"/>
</simpleType>


<complexType name="NotifyChangeOfPartialSuspensionOfItfN">
  <complexContent>
    <extension base="xe:Notification">
    <sequence>
      <element name="body">
        <complexType>
          <sequence>
            <element name="TypeOfChange" type="xps:TypeOfChange"
              minOccurs="1" maxOccurs="1"/>
            <element name="PartialSuspensionId" type="xps:PartialSuspensionId"
              minOccurs="1" maxOccurs="1"/>
            <element name="ManagerReference" type="string"
              minOccurs="1" maxOccurs="1"/>
            <element name="BaseMOInstance" type="string"
              minOccurs="0" maxOccurs="1"/>
            <element name="Scope" type="nk:ScopeType"
              minOccurs="0" maxOccurs="1"/>
            <element name="ActivationTime" type="dateTime"
              minOccurs="0" maxOccurs="1"/>
          </sequence>
        </complexType>
      </element>
    </sequence>
    </extension>
  </complexContent>
</complexType>

   <element name="NotifyChangeOfPartialSuspensionOfItfN"
     type="xps:NotifyChangeOfPartialSuspensionOfItfN"/>

</schema>
```

Annex B (informative): XML schema electronic files

The electronic files corresponding to the normative 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/32.385/schema/32385-810-XMLSchema.zip

Annex C (informative): Change history

Change history								
Date	**TSG #**	**TSG Doc.**	**CR**	**R**	**Subject/Comment**	**Cat**	**Old**	**New**
May 2007	SA_36	SP-070284	--	--	Submitted to SA#36 for Approval	--	1.0.0	7.0.0
Dec 2007	SA_38	SP-070732	0001	--	R7 CR 32.385-700 correction of compilation errors in XML schema	F	7.0.0	7.1.0
Jun 2008	SA_40	SP-080328	0002	1	Remove duplicate use of XML name space reference xp	F	7.1.0	7.2.0
Dec 2008	SA_42	--	--	--	Upgrade to Release 8	--	7.2.0	8.0.0
Sep 2011	SA_53	SP-110523	0005	-	Correct syntax errors in Partial Suspension of Itf-N specific XML schema	A	8.0.0	8.1.0

History

Document history		
V8.0.0	January 2009	Publication
V8.1.0	October 2011	Publication