

ETSI TS 132 445 V8.0.0 (2009-01)

Technical Specification

**Universal Mobile Telecommunications System (UMTS);
LTE;
Telecommunication management;
Trace Management Integration Reference Point (IRP):
eXtensible Markup Language (XML) file format definition
(3GPP TS 32.445 version 8.0.0 Release 8)**



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Foreword

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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:

- 32.441 "Trace Management Integration Reference Point (IRP): Requirements"
- 32.442 "Trace Management Integration Reference Point (IRP): Information Service (IS)"
- 32.443 "Trace Management Integration Reference Point (IRP): Common Object Request Broker Architecture (CORBA) Solution Set (SS)"
- 32.445: "Trace Management Integration Reference Point (IRP): eXtensible Markup Language (XML) file format definition"**

The present document is part of a TS-family which describes the requirements and information model necessary for the Telecommunication Management (TM) of 3G systems. The TM principles and TM architecture are specified in 3GPP TS 32.101 [2] and 3GPP TS 32.102 [3].

Trace provides very detailed information on call level for a specific subscriber or MS. This data is an additional information source to Performance Measurements and allows deeper investigations in problems solving or in case of optimization.

1 Scope

The present document is the eXtensible Markup Language (XML) file format definition of Trace IRP for the IRP whose semantics is specified in Trace IRP: Information Service (3GPP TS 32.442 [3]).

This XML Definitions specification defines the XML syntax of the Trace IRP XML Data File for the notifications related to Trace IRP. The XML file definitions for a trace data file can be found in Annex A of 3GPP TS 32.423 [4].

This XML File Format Definition specification is related to 3GPP TS 32.442 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 32.342: "Telecommunication management; File Transfer (FT) 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] W3C REC-xml-names-19990114: "Namespaces in XML".
 - [10] 3GPP TS 32.441: "Telecommunication management; Trace Management Integration Reference Point (IRP): Requirements".
 - [11] 3GPP TS 32.442: "Telecommunication management; Trace Management Integration Reference Point (IRP): Information Service (IS)".
 - [12] 3GPP TS 32.422: "Telecommunication management; Subscriber and equipment trace; Trace control and configuration management".
 - [13] 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:

4 Structure and content of configuration data XML files

Annex A of the present document defines the Trace IRP-specific XML schema and element types in `traceIRP.xsd` to represent the information transported in the notifications defined in 3GPP TS 32.442 [11].

4.1 Global structure

See 3GPP TS 32.615 [13]

The following XML namespaces are potentially used in Trace IRP XML files:

- `traceIRP.xsd` (see Annex A)

4.2 XML elements `fileHeader` and `fileFooter`

4.2.1 XML elements `fileHeader`

See 3GPP TS 32.615 [13]

4.2.2 XML element `fileFooter`

See 3GPP TS 32.615 [13]

4.3 Trace IRP specific XML elements

See Annex A.

4.4 Trace IRP XML File Name Conventions

For Trace IRP XML File Name Conventions the generic file name definitions as specified by the FT IRP apply (see [3]).

Annex A (normative):

Trace IRP specific data file XML schema (file name traceIRP.xsd"

```

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

<!--
  3GPP TS 32.445 Trace IRP
  Trace IRP specific data file XML schema
  traceIRP.xsd
-->

<schema
  targetNamespace=
"http://www.3gpp.org/ftp/specs/archive/32_series/32.445#traceIRP"

  elementFormDefault="qualified"

  xmlns="http://www.w3.org/2001/XMLSchema"

  xmlns:tr=
"http://www.3gpp.org/ftp/specs/archive/32_series/32.445#traceIRP"

  xmlns:xe=
"http://www.3gpp.org/ftp/specs/archive/32_series/32.305#notification"
>

  <import
    namespace=
"http://www.3gpp.org/ftp/specs/archive/32_series/32.305#notification"
  />

  <!-- XML types specific for trace IRP notifications -->

<complexType name="TraceReference">
  <choice>
    <element name="MCC" type="string" />
    <element name="MNC" type="string" />
    <element name="TRACE_ID" type="integer" />
  </choice>
</complexType>

<complexType name="NotifyTraceRecordingSessionFailure">
  <complexContent>
    <extension base="xe:Notification">
      <sequence>
        <element name="body">
          <complexType>
            <sequence>
              <element name="TraceRecordingSessionReference" type="integer" minOccurs="0"/>
              <element name="TraceReference" type="integer"/>
              <element name="Reason" type="string" minOccurs="0"/>
            </sequence>
          </complexType>
        </element>
      </sequence>
    </extension>
  </complexContent>
</complexType>

<element name="NotifyTraceRecordingSessionFailure" type="tr:NotifyTraceRecordingSessionFailure"/>

<complexType name="TraceTarget">
  <choice>
    <element name="IMSI" type="string" />
    <element name="TraceTarget" type="string" />
  </choice>

```

```
<element name="PUBLIC_ID" type="string" />
<element name="UTRAN_CELL" type="string" />
<element name="E-UTRAN_CELL" type="string" />
</choice>
</complexType>

<complexType name="NotifyTraceSessionLocalActivation">
  <complexContent>
    <extension base="xe:Notification">
      <sequence>
        <element name="body">
          <complexType>
            <sequence>
              <element name="TraceReference" type="integer"/>
              <element name="TraceTarget" type="integer"/>
              <element name="IOCInstance" type="string"/>
            </sequence>
          </complexType>
        </element>
      </sequence>
    </extension>
  </complexContent>
</complexType>

<element name="NotifyTraceSessionLocalActivation" type="tr:NotifyTraceSessionLocalActivation"/>

<complexType name="NotifyTraceSessionIdentities">
  <complexContent>
    <extension base="xe:Notification">
      <sequence>
        <element name="body">
          <complexType>
            <sequence>
              <element name="TraceRecordingSessionReference" type="integer" minOccurs="0"/>
              <element name="TraceReference" type="integer"/>
              <element name="TraceTarget" type="integer"/>
            </sequence>
          </complexType>
        </element>
      </sequence>
    </extension>
  </complexContent>
</complexType>

<element name="NotifyTraceSessionIdentities" type="tr:NotifyTraceSessionIdentities"/>

</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/32.445/schema/32445-800-XMLSchema.zip

Annex C (informative): Change history

Change history								
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Cat	Old	New
Jun 2007	SA_36	SP-070290	--	--	Submitted to SA#36 for Approval	--	1.0.0	7.0.0
Dec 2008	SA_42	SP-080846	0001	--	Adding EPS related modifications to Trace IRP XML schema	B	7.0.0	8.0.0

History

Document history		
V8.0.0	January 2009	Publication