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Technical Specification

**Digital cellular telecommunications system (Phase 2+);
Universal Mobile Telecommunications System (UMTS);
LTE;
Telecommunication management;
Generic Integration Reference Point (IRP) management;
SOAP Solution Set (SS)
(3GPP TS 32.317 version 7.1.0 Release 7)**



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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	6
4 Architectural Features	6
5 Mapping	7
5.1 Operation mapping	7
5.2 Operation parameter mapping	7
5.2.1 Operation getIRPVersion.....	7
5.2.1.1 Input parameters.....	7
5.2.1.2 Output parameters	7
5.2.1.3 Fault definition.....	7
5.2.2 Operation getOperationProfile.....	8
5.2.2.1 Input parameters.....	8
5.2.2.2 Output parameters	8
5.2.2.3 Fault definition.....	8
5.2.3 Operation getNotificationProfile	8
5.2.3.1 Input parameters.....	8
5.2.3.2 Output parameters	9
5.2.3.3 Fault definition.....	9
Annex A (normative): WSDL specifications	10
Annex B (informative): Generic IRP WSDL/XML schema electronic files	12
Annex C (informative): Change history	13
History	14

Foreword

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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:

- 32.311: "Generic Integration Reference Point (IRP) management: Requirements".
- 32.312: "Generic Integration Reference Point (IRP) management: Information Service (IS)".
- 32.313: "Generic Integration Reference Point (IRP) management: Common Object Request Broker Architecture (CORBA) Solution Set (SS)".
- 32.317: "Generic Integration Reference Point (IRP) management: SOAP solution set.**

1 Scope

The present document specifies the SOAP Solution Set for Generic IRP management whose capabilities are specified in Generic IRP management: Information Service (3GPP TS 32.312 [1]).

This Solution Set specification is related to TS 32.312 V7.0.X.

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 32.312: "Telecommunication management; Generic Integration Reference Point (IRP) management: Information Service (IS)".
- [2] 3GPP TS 32.311: "Telecommunication management; Generic Integration Reference Point (IRP) management; Requirements".
- [3] 3GPP TS 32.111-2: "Telecommunication management; Alarm Integration Reference Point (IRP); Information Service (IS)".
- [4] 3GPP TS 32.302: "Telecommunication management; Configuration Management (CM); Notification Integration Reference Point (IRP): Information Service (IS)".
- [5] W3C WSDL 1.1 specification (<http://www.w3.org/TR/2001/NOTE-wsdl-20010315>)
- [6] Thompson, H.S., Beech, D., Maloney, M., Mendleson, N., eds. (May 2002). "XML Schema Part 1: Structures," Recommendation, World Wide Web Consortium <http://www.w3.org/TR/xmlschema-1/>
- [7] Biron, P.V., Malhotra, A., eds. (May 2002). "XML Schema Part 2: Datatypes," Recommendation, World Wide Web Consortium <http://www.w3.org/TR/xmlschema-2/>
- [8] W3C SOAP 1.1 specification (<http://www.w3.org/TR/2000/NOTE-SOAP-20000508/>)
- [9] RFC 2616 (June 1999): "Hypertext Transfer Protocol – HTTP/1.1"
- [10] W3C WSDL 1.1 specification (<http://www.w3.org/TR/2001/NOTE-wsdl-20010315>)
- [11] W3C SOAP 1.2 specification (<http://www.w3.org/TR/soap12-part1/>)

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the terms and definitions given in 3GPP TS 32.312 [1] apply.

IRP document version number string (or "IRPVersion"): See 3GPP TS 32.311 [2] subclause 3.1.

3.2 Abbreviations

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

HTTP	HyperText Transfer Protocol
IRP	Integration Reference Point
IOC	Information Object Class
SS	Solution Set
WSDL	Web Services Description Language
XML	eXtensible Markup Language
WSDL	Web Service Description Language
WS-I	Web Services Interoperability Organization

4 Architectural Features

The overall architectural feature of this IRP is specified in 3G TS 32.312 [1]. This clause specifies features that are specific to the SOAP SS.

This clause specifies features that are specific to the SOAP SS.

The SOAP 1.1 specification [8] and WSDL 1.1 specification [5] are supported.

The SOAP 1.2 specification [11] is optionally supported.

This specification uses "document" style in the WSDL description.

This specification uses "literal" encoding style in the WSDL description.

This specification uses a number of namespace prefixes throughout that are listed in Table 4.1.

Table 4.1: Prefixes and Namespaces used in this specification

Prefix	Namespace
http	http://schemas.xmlsoap.org/wsdl/http/
soap	http://schemas.xmlsoap.org/wsdl/soap/
SOAP-ENV	http://schemas.xmlsoap.org/soap/envelope/
SOAP-ENC or soapenc	http://schemas.xmlsoap.org/soap/encoding/
xs or xsd	http://www.w3.org/2001/XMLSchema
xsi	http://www.w3.org/2001/XMLSchema-instance
genericIRPData	http://www.3gpp.org/ftp/Specs/archive/32_series/32317/schema/32317-710/GenericIRPData

5 Mapping

5.1 Operation mapping

Generic IRP management: IS [1] defines semantics of operation visible across the Itf-N. Table 5.1 indicates mapping of these operations to their equivalents defined in this SS.

Table 5.1: Mapping from IS Notification/Operation to SS equivalents

IS Operation TS 32.312 [1]	SS Operation	Qualifier
getIRPVersion	getIRPVersion	M
getOperationProfile	getOperationProfile	O
getNotificationProfile	getNotificationProfile	O

5.2 Operation parameter mapping

5.2.1 Operation getIRPVersion

5.2.1.1 Input parameters

None.

Here is the XML schema fragment of the getIRPVersion request:

```
<!-- getIRPVersion Request -->
<element name="getIRPVersion">
</element>
```

5.2.1.2 Output parameters

Table 5.2.1.2: Mapping from IS getIRPVersion output parameters to SS equivalents

IS Operation parameter	SS Operation parameter	Qualifier
versionNumberSet	genericIRPData:VersionNumberSetType versionNumberSet	M
status	genericIRPData:getIRPVersionFault	M

Here is the XML schema fragment of the getIRPVersion response:

```
<!-- getIRPVersion Response -->
<element name="getIRPVersionResponse">
  <complexType>
    <sequence>
      <element name="versionNumberSet" type="genericIRPData:VersionNumberSetType"/>
    </sequence>
  </complexType>
</element>
```

5.2.1.3 Fault definition

```
<!-- getIRPVersion Fault -->
<element name="getIRPVersionFault">
  <complexType>
    <choice>
      <element name="getIRPVersionFault" type="string" default="getIRPVersionFault"/>
    </choice>
  </complexType>
</element>
```


5.2.2 Operation getOperationProfile

5.2.2.1 Input parameters

Table 5.2.2.1: Mapping from IS getOperationProfile input parameters to SS equivalents

IS Operation parameter	SS Operation parameter	Qualifier
iRPVersion	genericIRPData:VersionNumberType iRPVersion	M

Here is the XML schema fragment of the getOperationProfile request:

```
<!-- getOperationProfile Request -->
<element name="getOperationProfile">
  <complexType>
    <sequence>
      <element name="iRPVersion" type="genericIRPData:VersionNumberType"/>
    </sequence>
  </complexType>
</element>
```

5.2.2.2 Output parameters

Table 5.2.2.2: Mapping from IS getOperationProfile output parameters to SS equivalents

IS Operation parameter	SS Operation parameter	Qualifier
operationNameProfile,operationParameterProfile	genericIRPData:OperationSetType operationSet	M
status	genericIRPData:getOperationProfileFault	M

Here is the XML schema fragment of the getOperationProfile response:

```
<!-- getOperationProfile Response -->
<element name="getOperationProfileResponse">
  <complexType>
    <sequence>
      <element name="operationSet" type="genericIRPData:OperationSetType"/>
    </sequence>
  </complexType>
</element>
```

5.2.2.3 Fault definition

```
<!-- getOperationProfile Fault -->
<element name="getOperationProfileFault">
  <complexType>
    <choice>
      <element name="getOperationProfileFault" type="string"/>
      <element ref="genericIRPData:OperationNotSupportedFault"/>
      <element ref="genericIRPData:InvalidParameterFault"/>
    </choice>
  </complexType>
</element>
```

5.2.3 Operation getNotificationProfile

5.2.3.1 Input parameters

Table 5.2.3.1: Mapping from IS getNotificationProfile input parameters to SS equivalents

IS Operation parameter	SS Operation parameter	Qualifier
iRPVersion	genericIRPData:VersionNumberType iRPVersion	M

Here is the XML schema fragment of the getNotificationProfile request:

```

<!-- getNotificationProfile Request -->
<element name="getNotificationProfile">
  <complexType>
    <sequence>
      <element name="iRPVersion" type="genericIRPData:VersionNumberType"/>
    </sequence>
  </complexType>
</element>

```

5.2.3.2 Output parameters

Table 5.2.3.2: Mapping from IS getNotificationProfile output parameters to SS equivalents

IS Operation parameter	SS Operation parameter	Qualifier
notificationNameProfile,notificationParameterProfile	genericIRPData:NotificationSetType notificationSet	M
Status	genericIRPData:getNotificationProfileFault	M

Here is the XML schema fragment of the getNotificationProfile response:

```

<!-- getNotificationProfile Response -->
<element name="getNotificationProfileResponse">
  <complexType>
    <sequence>
      <element name="notificationSet" type="genericIRPData:NotificationSetType"/>
    </sequence>
  </complexType>
</element>

```

5.2.3.3 Fault definition

```

<!-- getNotificationProfile Fault -->
<element name="getNotificationProfileFault">
  <complexType>
    <choice>
      <element name="getNotificationProfileFault" type="string"
default="getNotificationProfileFault"/>
      <element ref="genericIRPData:OperationNotSupportedFault"/>
      <element ref="genericIRPData:InvalidParameterFault"/>
    </choice>
  </complexType>
</element>

```

Annex A (normative): WSDL specifications

```

<?xml version="1.0" encoding="UTF-8"?>
<definitions xmlns="http://schemas.xmlsoap.org/wsdl/" xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:genericIRPData="http://www.3gpp.org/ftp/Specs/archive/32_series/32317/schema/32317-
710/GenericIRPData"
targetNamespace="http://www.3gpp.org/ftp/Specs/archive/32_series/32317/schema/32317-
710/GenericIRPSystem">
  <types>
    <schema targetNamespace="http://www.3gpp.org/ftp/Specs/archive/32_series/32317/schema/32317-
710/GenericIRPData" xmlns="http://www.w3.org/2001/XMLSchema">
      <element name="OperationNotSupportedFault" type="string"/>
      <element name="InvalidParameterFault" type="string"/>
      <simpleType name="VersionNumberType">
        <restriction base="string"/>
      </simpleType>
      <complexType name="VersionNumberSetType">
        <sequence>
          <element name="versionNumber" type="genericIRPData:VersionNumberType"
maxOccurs="unbounded"/>
        </sequence>
      </complexType>
      <complexType name="ParameterSetType">
        <sequence>
          <element name="parameterName" type="string" maxOccurs="unbounded"/>
        </sequence>
      </complexType>
      <complexType name="OperationType">
        <sequence>
          <element name="operationName" type="string"/>
          <element name="parameterSet" type="genericIRPData:ParameterSetType"/>
        </sequence>
      </complexType>
      <complexType name="OperationSetType">
        <sequence>
          <element name="operation" type="genericIRPData:OperationType"
maxOccurs="unbounded"/>
        </sequence>
      </complexType>
      <complexType name="NotificationType">
        <sequence>
          <element name="notificationName" type="string"/>
          <element name="parameterSet" type="genericIRPData:ParameterSetType"/>
        </sequence>
      </complexType>
      <complexType name="NotificationSetType">
        <sequence>
          <element name="notification" type="genericIRPData:NotificationType"
maxOccurs="unbounded"/>
        </sequence>
      </complexType>
      <!-- getIRPVersion Request -->
      <element name="getIRPVersion">
      </element>
      <!-- getIRPVersion Response -->
      <element name="getIRPVersionResponse">
        <complexType>
          <sequence>
            <element name="versionNumberSet" type="genericIRPData:VersionNumberSetType"/>
          </sequence>
        </complexType>
      </element>
      <!-- getIRPVersion Fault -->
      <element name="getIRPVersionFault">
        <complexType>
          <choice>
            <element name="getIRPVersionFault" type="string"/>
          </choice>
        </complexType>
      </element>
      <!-- getOperationProfile Request -->
      <element name="getOperationProfile">
        <complexType>

```

```

        <sequence>
            <element name="iRPVersion" type="genericIRPData:VersionNumberType"/>
        </sequence>
    </complexType>
</element>
<!-- getOperationProfile Response -->
<element name="getOperationProfileResponse">
    <complexType>
        <sequence>
            <element name="operationSet" type="genericIRPData:OperationSetType"/>
        </sequence>
    </complexType>
</element>
<!-- getOperationProfile Fault -->
<element name="getOperationProfileFault">
    <complexType>
        <choice>
            <element name="getOperationProfileFault" type="string"/>
            <element ref="genericIRPData:OperationNotSupportedFault"/>
            <element ref="genericIRPData:InvalidParameterFault"/>
        </choice>
    </complexType>
</element>
<!-- getNotificationProfile Request -->
<element name="getNotificationProfile">
    <complexType>
        <sequence>
            <element name="iRPVersion" type="genericIRPData:VersionNumberType"/>
        </sequence>
    </complexType>
</element>
<!-- getNotificationProfile Response -->
<element name="getNotificationProfileResponse">
    <complexType>
        <sequence>
            <element name="notificationSet" type="genericIRPData:NotificationSetType"/>
        </sequence>
    </complexType>
</element>
<!-- getNotificationProfile Fault -->
<element name="getNotificationProfileFault">
    <complexType>
        <choice>
            <element name="getNotificationProfileFault" type="string"/>
            <element ref="genericIRPData:OperationNotSupportedFault"/>
            <element ref="genericIRPData:InvalidParameterFault"/>
        </choice>
    </complexType>
</element>
</schema>
</types>
<message name="getIRPVersionRequest">
    <part name="parameter" element="genericIRPData:getIRPVersion"/>
</message>
<message name="getIRPVersionResponse">
    <part name="parameter" element="genericIRPData:getIRPVersionResponse"/>
</message>
<message name="getIRPVersionFault">
    <part name="parameter" element="genericIRPData:getIRPVersionFault"/>
</message>
<message name="getOperationProfileRequest">
    <part name="parameter" element="genericIRPData:getOperationProfile"/>
</message>
<message name="getOperationProfileResponse">
    <part name="parameter" element="genericIRPData:getOperationProfileResponse"/>
</message>
<message name="getOperationProfileFault">
    <part name="parameter" element="genericIRPData:getOperationProfileFault"/>
</message>
<message name="getNotificationProfileRequest">
    <part name="parameter" element="genericIRPData:getNotificationProfile"/>
</message>
<message name="getNotificationProfileResponse">
    <part name="parameter" element="genericIRPData:getNotificationProfileResponse"/>
</message>
<message name="getNotificationProfileFault">
    <part name="parameter" element="genericIRPData:getNotificationProfileFault"/>
</message>

```

</definitions>

Annex B (informative): Generic IRP WSDL/XML schema electronic files

The electronic files corresponding to the normative WSDL/XML schema defined in the present document are available in native form in the following archive:

http://www.3gpp.org/ftp/Specs/archive/32_series/32317/schema/32317-710-wsdl.zip

Annex C (informative): Change history

Change history								
Date	TSG #	TSG Doc.	CR	R	Subject/Comment	Cat	Old	New
Sep 2006	SA_33	SP-060555	--	--	Submitted to TSG SA #33 for Information	--	--	1.0.0
Dec 2006	SA_34	SP-060741	--	--	Submitted to TSG SA #34 for Approval	--	2.0.0	7.0.0
Mar 2007	--	--	--	--	Delete reference to the 32.314 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
Jun 2007	--	--	--	--	Changed TS Title. Reason: SOAP does not stand anymore for "Simple Object Access Protocol"	--	7.0.1	7.0.2
Dec 2008	SA_42	SP-080845	0001	--	Incorrect URI specified in TS 32.317 (both word document and corresponding wsdl file)	F	7.0.2	7.1.0

History

Document history		
V7.0.2	June 2007	Publication
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