

3GPP TS 32.317 V9.1.0 (2011-06)

Technical Specification

**3rd Generation Partnership Project;
Technical Specification Group Services and System Aspects;
Telecommunication management;
Generic Integration Reference Point (IRP) management;
SOAP Solution Set (SS)
(Release 9)**



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Keywords

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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:

- 32.311: 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 (SS)**

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 V9.0.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., Mendleshon, 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
genericRPData	http://www.3gpp.org/ftp/Specs/archive/32_series/32317/schema/32317-810/GenericRPData

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:soap="http://schemas.xmlsoap.org/wsdl/soap/"
xmlns:genericIRPSystem="http://www.3gpp.org/ftp/Specs/archive/32_series/32.317/schema/32317-910/GenericIRPSystem"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
xmlns:genericIRPData="http://www.3gpp.org/ftp/Specs/archive/32_series/32.317/schema/32317-910/GenericIRPData"
targetNamespace="http://www.3gpp.org/ftp/Specs/archive/32_series/32.317/schema/32317-910/GenericIRPSystem">
  <types>
    <schema targetNamespace="http://www.3gpp.org/ftp/Specs/archive/32_series/32.317/schema/32317-910/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"/>
      <!-- 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>
    </schema>
  </types>

```

```

<!-- 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="get IRPVersionRequest">
  <part name="parameter" element="genericIRPData:get IRPVersion"/>
</message>
<message name="get IRPVersionResponse">
  <part name="parameter" element="genericIRPData:get IRPVersionResponse"/>
</message>
<message name="get IRPVersionFault">
  <part name="parameter" element="genericIRPData:get IRPVersionFault"/>
</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>
<portType name="GenericIRPPortType">
  <operation name="getIRPVersion">
    <input message="genericIRPSystem:getIRPVersionRequest"/>
    <output message="genericIRPSystem:getIRPVersionResponse"/>
    <fault name="getIRPVersionFault" message="genericIRPSystem:getIRPVersionFault"/>
  </operation>
  <operation name="getOperationProfile">
    <input message="genericIRPSystem:getOperationProfileRequest"/>
    <output message="genericIRPSystem:getOperationProfileResponse"/>
    <fault name="getOperationProfileFault"
message="genericIRPSystem:getOperationProfileFault"/>
  </operation>
  <operation name="getNotificationProfile">
    <input message="genericIRPSystem:getNotificationProfileRequest"/>
    <output message="genericIRPSystem:getNotificationProfileResponse"/>
    <fault name="getNotificationProfileFault"
message="genericIRPSystem:getNotificationProfileFault"/>
  </operation>
</portType>
<binding name="GenericIRPBinding" type="genericIRPSystem:GenericIRPPortType">
  <soap:binding style="document" transport="http://schemas.xmlsoap.org/soap/http"/>
  <operation name="getIRPVersion">
    <soap:operation
soapAction="http://www.3gpp.org/ftp/Specs/archive/32_series/32.307#getIRPVersion" style="document"/>
    <input>
      <soap:body use="literal"/>
    </input>
    <output>
      <soap:body use="literal"/>
    </output>
    <fault name="getIRPVersionFault">
      <soap:fault name="getIRPVersionFault" use="literal"/>
    </fault>
  </operation>
  <operation name="getOperationProfile">
    <soap:operation
soapAction="http://www.3gpp.org/ftp/Specs/archive/32_series/32.307#getOperationProfile"
style="document"/>
    <input>
      <soap:body use="literal"/>
    </input>
    <output>
      <soap:body use="literal"/>
    </output>
    <fault name="getOperationProfileFault">
      <soap:fault name="getOperationProfileFault" use="literal"/>
    </fault>
  </operation>
  <operation name="getNotificationProfile">
    <soap:operation
soapAction="http://www.3gpp.org/ftp/Specs/archive/32_series/32.307#getNotificationProfile"
style="document"/>
    <input>
      <soap:body use="literal"/>
    </input>
    <output>
      <soap:body use="literal"/>
    </output>
    <fault name="getNotificationProfileFault">
      <soap:fault name="getNotificationProfileFault" use="literal"/>
    </fault>
  </operation>
</binding>
</definitions>

```

Annex B (informative):
Void

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 wsd file)	F	7.0.2	7.1.0
Dec 2008	SA_42	--	--	--	Upgrade to Release 8	--	7.1.0	8.0.0
Mar 2009	SA_43	SP-090207	0002	--	Include portType and binding in the WSDL	C	8.0.0	8.1.0
Dec 2009	SA_46	SP-090719	0003	--	Discontinuation of the maintenance of WSDL/XML schema folders	F	8.1.0	9.0.0
May 2011	SA_52	SP-110288	0004	--	Correct errors in the URI of name space	F	9.0.0	9.1.0