3GPP TS 32.316 V16.0.0(2020-07)

Technical Specification

3rd Generation Partnership Project;

Technical Specification Group Services and System Aspects;

Telecommunication management;

Generic Integration Reference Point (IRP) management;

Solution Set (SS) definitions

(Release 16)

* *

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Keywords

UMTS, management,

***3GPP***

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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)

**32.316: Generic Integration Reference Point (IRP) management; Solution Set (SS) definitions**

# 1 Scope

The present document provides the Solution Set definitions for Generic Integration Reference Point (IRP) management, whose capabilities are specified in 3GPP TS 32.312 [1], the Generic IRP management: Information Service.

This Solution Set Definition specification is related to 3GPP TS 32.312 V14.0.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/>)

[12] 3GPP TS 32.300: "Telecommunication management; Configuration Management (CM); Name convention for Managed Objects".

# 3 Definitions and abbreviations

## 3.1 Definitions

For the purposes of the present document, the terms and definitions given in 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:

CORBA Common Object Request Broker Architecture

HTTP HyperText Transfer Protocol

IDL Interface Definition Language

IRP Integration Reference Point

IOC Information Object Class

OMG Object Management Group

SS Solution Set

WSDL Web Services Description Language

WS-I Web Services Interoperability Organization

XML eXtensible Markup Language

# 4 Solution Set definitions

This specification defines the following 3GPP Generic IRP management Solution Set definitions:

- 3GPP Generic IRP management CORBA SS (Annex A)

- 3GPP Generic IRP management SOAP Solution Set (Annex B)

Solution Set to XML definitions is not present in the current version of this specification.

Annex A (normative):   
CORBA Solution Set

This annex contains the CORBA Solution Set for the IRP whose semantics is specified in Generic IRP: Information Service (TS 32.312 [1]).

# A.1 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 CORBA SS.

## A.1.1 Syntax for Distinguished Names

The syntax of a Distinguished Name is defined in 3GPP TS 32.300 [12].

## A.1.2 Abstract IOC

The capabilities of the Generic IRP management: IS [1] are captured by the definition of an IOC called ManagedGenericIRP. This IOC is an abstract class and is mapped to a MOC of the same name. The MOC is intended for inheritance by other MOCs specified in Interface IRPs such as AlarmIRP [3], NotificationIRP [4], etc.

# A.2 Mapping

## A.2.1 Operation mapping

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

Table A.1: Mapping from IS Notification/Operation to SS equivalents

|  |  |  |
| --- | --- | --- |
| IS Operation TS 32.312 [1] | SS Method | Qualifier |
| getIRPVersion | get\_irp\_versions | M |
| getOperationProfile | get\_interface\_irp\_operation\_profile | O |
| getNotificationProfile | get\_interface\_irp\_notification\_profile | O |

## A.2.2 Operation parameter mapping

Generic IRP management: IS [1] defines semantics of parameters carried in operations across the Itf-N. The following set of tables indicates the mapping of these parameters, as per operation, to their equivalents defined in this SS.

Table A.2 Mapping from IS getIRPVersion parameters to SS equivalents

|  |  |  |
| --- | --- | --- |
| IS Operation parameter | SS Method parameter | Qualifier |
| versionNumberSet | Return value of type GenericIRPManagementConstDefs::VersionNumberSet | M |
| status | Exceptions:  GenericIRPManagementSystem::GetIRPVersions | M |

Table A.3 Mapping from IS getOperationProfile parameters to SS equivalents

|  |  |  |
| --- | --- | --- |
| IS Operation parameter | SS Method parameter | Qualifier |
| iRPVersion | GenericIRPManagementConstDefs::VersionNumber this\_irp\_version | M |
| operationNameProfile, operationParameterProfile | Return value of type GenericIRPManagementConstDefs::MethodList | M |
| status | Exceptions:  GenericIRPManagementSystem::GetInterfaceIRPOperationsProfile,  GenericIRPManagementSystem::OperationNotSupported,  GenericIRPManagementSystem::InvalidParameter,  GenericIRPManagementSystem::ValueNotSupported | M |

Table A.4 Mapping from IS getNotificationProfile parameters to SS equivalents

|  |  |  |
| --- | --- | --- |
| IS Operation parameter | SS Method parameter | Qualifier |
| iRPVersion | GenericIRPManagementConstDefs::VersionNumber this\_irp\_version | M |
| notificationNameProfile, notificationParameterProfile | Return value of type GenericIRPManagementConstDefs::NotificationList | M |
| status | Exceptions:  GenericIRPManagementSystem::GetInterfaceIRPNotificationProfile,  GenericIRPManagementSystem::OperationNotSupported,  GenericIRPManagementSystem::InvalidParameter,  GenericIRPManagementSystem::ValueNotSupported | M |

# A.3 Solution Set definitions

## A.3.1 IDL definition structure

Clause A.3.2 defines the constants and types used by the Generic IRP.

Clause A.3.3 defines the operations and notifications which are performed by the Generic IRP agent.

## A.3.2 IDL specification “GenericIRPManagementConstDefs.idl”

//File: GenericIRPManagementConstDefs.idl

#ifndef \_GENERIC\_IRP\_MANAGEMENT\_CONST\_DEFS\_IDL\_

#define \_GENERIC\_IRP\_MANAGEMENT\_CONST\_DEFS\_IDL\_

#include <TimeBase.idl>

// This statement must appear after all include statements

#pragma prefix "3gppsa5.org"

/\* ## Module: GenericIRPManagementConstDefs

This module contains definitions commonly used among all IRPs.

==============================================================

\*/

module GenericIRPManagementConstDefs

{

/\*

\* Definition imported from CosTime.

\* The time refers to time in Greenwich Time Zone.

\* It also consists of a time displacement factor in the form of minutes of

\* displacement from the Greenwich Meridian.

\*/

typedef TimeBase::UtcT IRPTime;

typedef string DN;

typedef sequence <DN> DNList;

enum Signal {OK, FULL\_FAILURE, PARTIAL\_FAILURE};

enum Result {SUCCESS, FAILURE};

/\*

\* This holds a list of notification Ids

\*/

typedef sequence <long> NotifIdSet;

/\*

\* This holds identifiers of notifications that are correlated.

\*/

struct CorrelatedNotification

{

DN source;// Contains DN of MO that emitted the set of notifications

// DN string format in compliance with Name Convention for

// Managed Object.

// This may be a zero-length string. In this case, the MO

// is identified by the value of the MOI attribute

// of the Structured Event, i.e., the notification.

NotifIdSet notif\_id\_set; // Set of related notification ids

};

/\*

\* The VersionNumber is a string that identifies the IRP specification name

\* and its version number. See definition "IRP document version number

\* string" or "IRPVersion".

\* The VersionNumberSet is a sequence of such VersionNumber. It is returned

\* by get\_XXX\_IRP\_versions(). The sequence order has no significance.

\*/

typedef string VersionNumber;

typedef sequence <VersionNumber> VersionNumberSet;

typedef string MethodName;

typedef string ParameterName;

typedef sequence <ParameterName> ParameterList;

/\*

\* The Method defines the structure to be returned as part of

\* get\_supported\_operations\_profile(). The name shall be the actual method

\* name (ex. "attach\_push", "change\_subscription\_filter", etc.)

\* The parameter\_list contains a list of strings. Each string shall be

\* the actual parameter name (ex. "manager\_reference", "filter", etc.)

\*/

struct Method

{

MethodName name;

ParameterList parameter\_list;

};

/\*

\* List of all methods and their associated parameters.

\*/

typedef sequence <Method> MethodList;

typedef string NotificationName;

struct Notification

{

NotificationName name;

ParameterList parameter\_list;

};

typedef sequence <Notification> NotificationList;

/\*

\* Defines the name of an attribute of a Managed Object

\*/

typedef string MOAttributeName;

/\*

\* Defines the value of an attribute of a Managed Object in form of a CORBA

\* Any. Apart from basic datatypes already defined in CORBA, the allowed

\* attribute value types are defined in the AttributeTypes module.

\*/

typedef any MOAttributeValue;

/\*

\* Represents an attribute: "name" is the attribute name

\* and "value" is the attribute value.

\*/

struct MOAttribute

{

MOAttributeName name;

MOAttributeValue value;

};

typedef sequence <MOAttribute> MOAttributeSet;

typedef string ManagerIdentifier;

/\*

\* The following are types carrying an optional parameter.

\* If the boolean is TRUE, then the value is present.

\* Otherwise the value is absent.

\*/

union StringOpt switch (boolean)

{

case TRUE: string value;

};

union ShortOpt switch (boolean)

{

case TRUE: short value;

};

union UnsignedShortOpt switch (boolean)

{

case TRUE: unsigned short value;

};

union LongOpt switch (boolean)

{

case TRUE: long value;

};

union UnsignedLongOpt switch (boolean)

{

case TRUE: unsigned long value;

};

union IRPTimeOpt switch (boolean)

{

case TRUE: GenericIRPManagementConstDefs::IRPTime value;

};};

#endif // \_GENERIC\_IRP\_MANAGEMENT\_CONST\_DEFS\_IDL\_

## A.3.3 IDL specification “GenericIRPManagementSystem.idl”

//File: GenericIRPManagementSystem.idl

#ifndef \_GENERIC\_IRP\_MANAGEMENT\_SYSTEM\_IDL\_

#define \_GENERIC\_IRP\_MANAGEMENT\_SYSTEM\_IDL\_

#include <GenericIRPManagementConstDefs.idl>

// This statement must appear after all include statements

#pragma prefix "3gppsa5.org"

module GenericIRPManagementSystem

{

exception GetInterfaceIRPNotificationProfile { string reason; };

exception GetInterfaceIRPOperationProfile { string reason; };

exception GetIRPVersions { string reason; };

/\*

Exception thrown when an unsupported optional parameter

is passed with information.

The parameter shall be the actual unsupported parameter name.

\*/

exception ParameterNotSupported {

GenericIRPManagementConstDefs::ParameterName parameter; };

/\*

Exception thrown when an invalid parameter value is passed.

The parameter shall be the actual parameter name.

\*/

exception InvalidParameter {

GenericIRPManagementConstDefs::ParameterName parameter; };

/\*

Exception thrown when a valid but unsupported parameter value is passed.

The parameter shall be the actual parameter name.

\*/

exception ValueNotSupported {

GenericIRPManagementConstDefs::ParameterName parameter; };

/\*

Exception thrown when an unsupported optional method is called.

\*/

exception OperationNotSupported {};

interface GenericIRPManagement

{

/\*

Return the list of all supported Interface IRP versions

Each IRPVersion is defined by the rule in the definition

"IRP document version number string" or "IRPVersion"

(see subclause 3.1).

\*/

GenericIRPManagementConstDefs::VersionNumberSet get\_irp\_versions

(

)

raises (GetIRPVersions);

/\*

Return the list of all supported methods and their supported

parameters for this Interface IRPVersion.

\*/

GenericIRPManagementConstDefs::MethodList

get\_interface\_irp\_operation\_profile

(

in GenericIRPManagementConstDefs::VersionNumber this\_irp\_version

)

raises (GetInterfaceIRPOperationProfile,

OperationNotSupported,

InvalidParameter,

ValueNotSupported);

/\*

Return the list of all supported notifications and their supported

parameters for this Interface IRPVersion.

\*/

typedef GenericIRPManagementConstDefs::NotificationList NotificationList;

NotificationList get\_interface\_irp\_notification\_profile

(

in GenericIRPManagementConstDefs::VersionNumber this\_irp\_version

)

raises (GetInterfaceIRPNotificationProfile,

OperationNotSupported,

InvalidParameter,

ValueNotSupported);

};

};

#endif // \_GENERIC\_IRP\_MANAGEMENT\_SYSTEM\_IDL\_

Annex B (normative):  
SOAP Solution Set

This annex specifies the SOAP Solution Set for the IRP whose semantics are specified in Generic IRP: Information Service (3GPP TS 32.312[1]).

# B.1 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.

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 B.1.

Table B.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/32.316#GenericIRPData |

## B.1.1 Syntax for Distinguished Names

The syntax of a Distinguished Name is defined in 3GPP TS 32.300 [12].

# B.2 Mapping

## B.2.1 Operation mapping

Generic IRP management: IS [1] defines semantics of operation visible across the Itf-N. Table B.2.1 indicates mapping of these operations to their equivalents defined in this SS.

Table B.2.1: 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 |

## B.2.2 Operation parameter mapping

### B.2.2.1 Operation getIRPVersion

#### B.2.2.1.1 Input parameters

None.

Here is the XML schema fragment of the getIRPVersion request:

<!-- getIRPVersion Request -->

<element name="getIRPVersion">

</element>

#### B.2.2.1.2 Output parameters

None.

Table B.2.2.1.2: 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>

#### B.2.2.1.3 Fault definition

<!-- getIRPVersion Fault -->

<element name="getIRPVersionFault">

<complexType>

<choice>

<element name="getIRPVersionFault" type="string" default="getIRPVersionFault"/>

</choice>

</complexType>

</element>

### B.2.2.2 Operation getOperationProfile

#### B.2.2.2.1 Input parameters

Table B.2.2.2.1: 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>

#### B.2.2.2.2 Output parameters

Table B.2.2.2.2: 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>

#### B.2.2.2.3 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>

### B.2.2.3 Operation getNotificationProfile

#### B.2.2.3.1 Input parameters

Table B.2.2.3.1: 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>

#### B.2.2.3.2 Output parameters

Table B.2.2.3.2: 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>

#### B.2.2.3.3 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>

# B.3 Solution Set definitions

## B.3.1 WSDL definition structure

Clause B.3.2 provides a graphical representation of the Generic IRP service.

Clause B.3.3 defines the services which are supported the Generic IRP agent.

## B.3.2 Graphical Representation

Not present in the current version of this specification.

## B.3.3 WSDL specification “GenericIRPSystem.wsdl”

<?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/32.316#GenericIRPSystem"

xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:genericIRPData="http://www.3gpp.org/ftp/specs/archive/32\_series/32.316#GenericIRPData" targetNamespace="http://www.3gpp.org/ftp/specs/archive/32\_series/32.316#GenericIRPSystem">

<types>

<schema targetNamespace="http://www.3gpp.org/ftp/specs/archive/32\_series/32.316#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>

<!-- 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>

<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/32.316#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/32.316#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/32.316#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 C (informative):  
Change history

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Change history** | | | | | | | |
| **Date** | **Meeting** | **TDoc** | **CR** | **Rev** | **Cat** | **Subject/Comment** | **New version** |
| 2010-05 | SA-48 | SP-100272 | -- | -- |  | Presentation to SA for information and approval | 1.0.0 |
| 06-2010 | SA-48 | -- | -- | -- |  | Publication | 10.0.0 |
| 09-2012 | SA-57 | - | - | - |  | Automatic upgrade from previous Release version 10.0.0 | 11.0.0 |
| 09-2014 | SA-65 | SP-140559 | 001 | - |  | Update the link from Solution Set to Information Service due to the end of Release 12 | 12.0.0 |
| 2016-01 | - | - | - | - |  | Update to Rel-13 version (MCC) | 13.0.0 |
| 2016-06 | SA#72 | SP-160407 | 0002 | - | F | Update the link from IRP Solution Set to IRP Information Service | 13.1.0 |
| 2017-03 | SA#75 | - | - | - |  | Promotion to Release 14 without technical change | 14.0.0 |
| 2017-06 | SA#76 | SP-170502 | 0003 | - | F | Update the link from IRP Solution Set to IRP Information Service | 14.1.0 |
| 2018-06 | - | - | - | - | - | Update to Rel-15 version (MCC) | 15.0.0 |
| 2020-07 | - | - | - | - | - | Update to Rel-16 version (MCC) | 16.0.0 |