

**Source Authentique des dispositifs médicaux implantables  
(SADMI)  
Authentieke bron van implanteerbare medische hulpmiddelen  
(ABIMD)  
Cookbook - v2.2**

This document is provided to you, free of charge, by the

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All are free to circulate this document with reference to the URL source.

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# 1. Document management

## 1.1 Document history

Version	Date	Author	Description of changes / remarks
1.	19/08/2014	eHealth platform	Version 1.0
1.1	08/06/2018	eHealth platform	Update
2.0	10/01/2022	eHealth platform	Update of the service to v3 which includes suspensions
2.1	10/03/2022	eHealth platform	Update §2.3, §5.1.2 and §5.1.3
2.2	11/08/2022	eHealth platform	§ 2.3 eHealth references (updated) § 3.2 Status (added) § 5.1.3 Tracing (updated)

## 2. Introduction

### 2.1 Goal of the service

The main purpose of the authentic source of implanted medical devices (SADM-ABMD) is to provide an authentic source of medical devices that are available on the Belgian market.

The service allows healthcare actors to access the information about a device (for example, the name of the device, the notification code of the device, the notification number of its distributor).

Data is consulted by a secured web application (WA) and a web service (WS) (the subject of this manual).

### 2.2 Goal of the document

In this cookbook, we explain the structure and content aspects of the possible requests and the replies of eHealth SADM - ABMD WS. An example illustrates each of those messages, described in section 5. Also, a list of possible errors can be found in this document.

This information should allow (the IT department of) an organization to develop and use the WS call.

Some technical and legal requirements (see sections 3 and 5) must be met in order to allow the integration of the eHealth web services in client applications.

This document is neither a development nor a programming guide for internal applications: the partners of the eHealth platform always keep a total freedom within those fields. Nevertheless, in order to interact in a smooth, homogeneous and risk controlled way with a maximum of partners, these partners must commit to comply with specifications, data format, and release processes described within this document. In addition, our partners in the health sector must also comply with the business rules of validation and integration of data within their own applications in order to minimize errors and incidents.

### 2.3 Document references

All the document references can be found on the portal of the eHealth platform<sup>1</sup>. These versions or any following versions can be used for the service.

ID	Title	Version	Date	Author
1	STS HolderofKey - Cookbook	1.5	13/07/2022	eHealth platform

### 2.4 External document references

All documents can be found through the internet. They are available to the public, but not supported by the eHealth platform.

ID	Title	Source	Date	Author
1	Basic Profile Version 1.1	<a href="http://www.ws-i.org/Profiles/BasicProfile-1.1-2004-08-24.html">http://www.ws-i.org/Profiles/BasicProfile-1.1-2004-08-24.html</a>	24/08/2004	Web Services Interoperability Organization

<sup>1</sup> <https://www.ehealth.fgov.be/ehealthplatform>

## 3. Support

### 3.1 Helpdesk eHealth platform

#### 3.1.1 Certificates

In order to access the secured eHealth platform environment you have to obtain an eHealth platform certificate, used to identify the initiator of the request. In case you do not have one, please consult the chapter about the eHealth Certificates on the portal of the eHealth platform

- <https://www.ehealth.fgov.be/ehealthplatform/nl/ehealth-certificaten>
- <https://www.ehealth.fgov.be/ehealthplatform/fr/certificats-ehealth>

For technical issues regarding eHealth platform certificates

- Acceptance: [acceptance-certificates@ehealth.fgov.be](mailto:acceptance-certificates@ehealth.fgov.be)
- Production: [support@ehealth.fgov.be](mailto:support@ehealth.fgov.be)

#### 3.1.2 For issues in production

eHealth platform contact centre:

- Phone: 02 788 51 55 (on working days from 7 am till 8 pm)
- Mail: [support@ehealth.fgov.be](mailto:support@ehealth.fgov.be)
- Contact Form :
  - <https://www.ehealth.fgov.be/ehealthplatform/nl/contact> (Dutch)
  - <https://www.ehealth.fgov.be/ehealthplatform/fr/contact> (French)

#### 3.1.3 For issues in acceptance

[Integration-support@ehealth.fgov.be](mailto:Integration-support@ehealth.fgov.be)

#### 3.1.4 For business issues

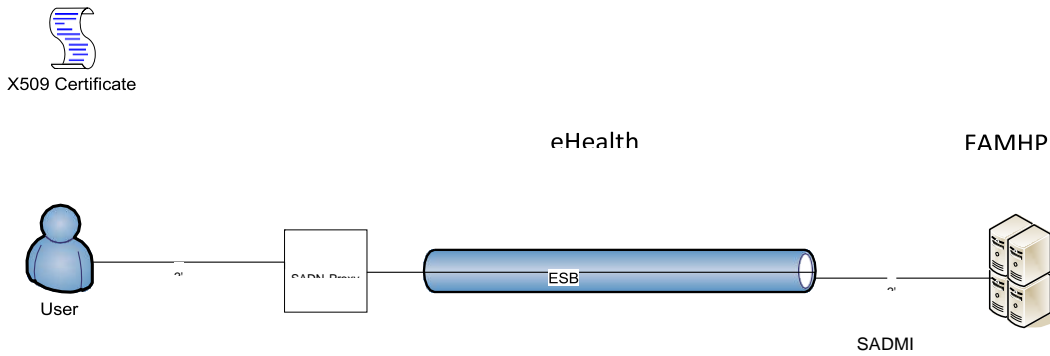
- regarding an existing project: the project manager in charge of the application or service
- regarding a new project or other business issues: [info@ehealth.fgov.be](mailto:info@ehealth.fgov.be)

### 3.2 Status

The website <https://status.ehealth.fgov.be> is the monitoring and information tool for the ICT functioning of the eHealth services that are partners of the Belgian eHealth system.



## 4. Global overview



The SADM - ABMD service is secured with X509 certificates. The ESB of the eHealth platform verifies the security (authentication, authorization, etc.), validates, transforms and forwards the request to FAMHP (Federal Agency for Medicines and Health Products).

## 5. Step-by-step

### 5.1 Technical requirements

The client must have a X509 certificate to use the service (see section 3.1).

#### 5.1.1 Security policies to apply

You must use “SSL one-way” for the transport layer. As web service security policy, we expect:

- A timestamp (the date of the request), with a time-to-live of one minute (if the message does not arriveduring this minute, it shall not be treated).
- The signature with the certificate of
  - the timestamp, (the one mentioned above),
  - the body (the message itself),
  - and the binary security token: an eHealth certificate.

This will allow the eHealth platform to verify the integrity of the message and the identity of the message author.

The eHealth platform can provide you with a document explaining how to implement this security policy.

#### 5.1.2 WS-I Basic Profile 1.1

Your request must be WS-I compliant (See Chap 2.4 - External Document Ref).

#### 5.1.3 Tracing

To use this service, the request SHOULD contain the following two http header values (see RFC

<https://datatracker.ietf.org/doc/html/rfc7231#section-5.5.3>):

1. User-Agent: information identifying the software product and underlying technical stack/platform. It MUST include the minimal identification information of the software such that the emergency contact (see below) can uniquely identify the component.
  - a. Pattern: {minimal software information}/{version} {minimal connector information}/{connector-package-version}
  - b. Regular expression for each subset (separated by a space) of the pattern: `[[a-zA-Z0-9-\\]]*\\[[0-9azA-Z-_.]]*`
  - c. Examples:  
User-Agent: myProduct/62.310.4 Technical/3.19.0  
User-Agent: Topaz-XXXX/123.23.X freeconnector/XXXXX.XXX
2. From: email-address that can be used for emergency contact in case of an operational problem.  
Examples:  
From: [info@mycompany.be](mailto:info@mycompany.be)

### 5.2 Web service

The SADM-ABMD WS has 2 operations:

- **searchMedicalDevice** to search a medical device by various search criteria.
- **searchByNotificationCode** to search medical devices by their notification code..The SADM-ABMD service has the following endpoints:
- Integration environment: <https://services-int.ehealth.fgov.be/Sadmi/v3>
- Acceptance environment: <https://services-acpt.ehealth.fgov.be/Sadmi/v3>
- Production environment: <https://services.ehealth.fgov.be/Sadmi/v3>

The remainder of this section describes the structure of the request and the response messages.





## eHealth SOA standard structure

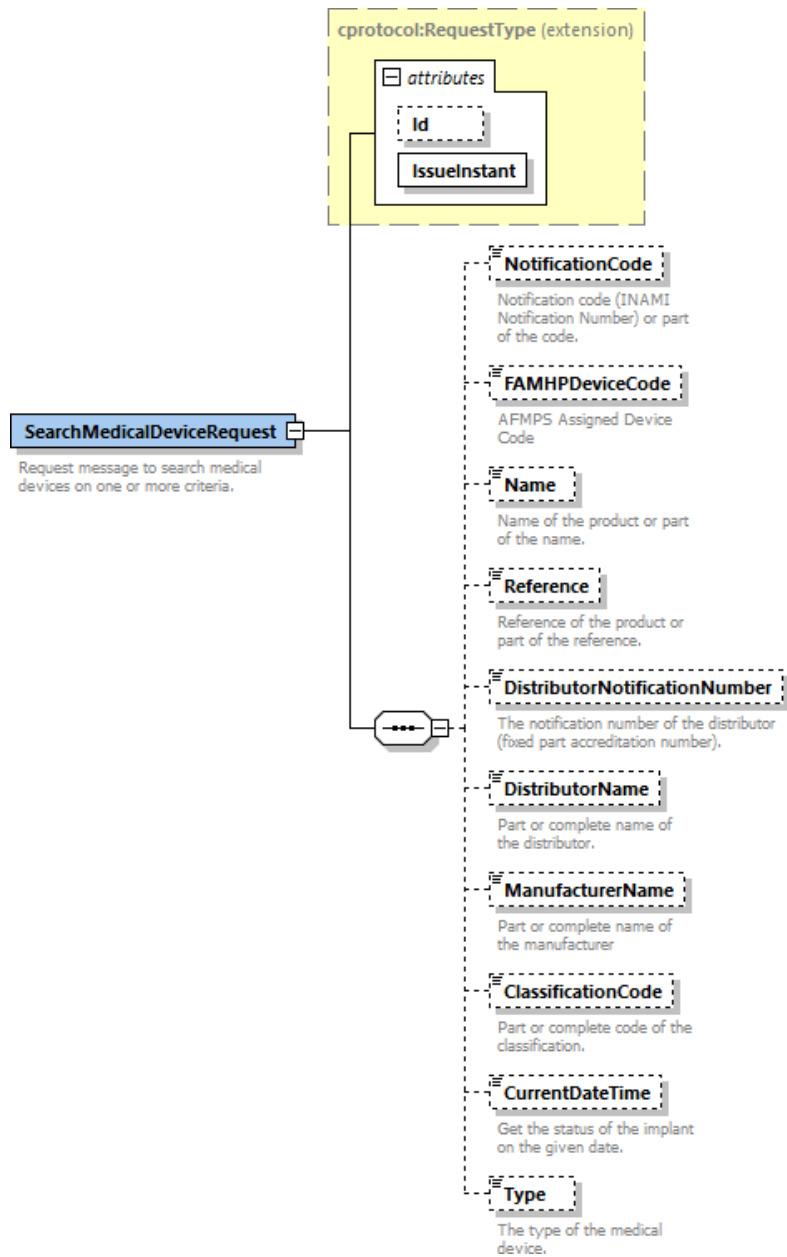
This service is a 'eHealth SOA standards-based' WS. We thus strongly recommend the consulting of the documentation related to the eHealth SOA standards element to implement a common message structure for SOA WS.

### 5.2.1 Method searchMedicalDevice

#### 5.2.1.1 Functional description

<b>Service name</b>	searchMedicalDevice
<b>Purpose</b>	Search a medical device by various criteria
<b>Input parameters</b>	<ol style="list-style-type: none"><li>1) The information about the request:<ul style="list-style-type: none"><li>• The identification of the request (unique and optional).</li><li>• The date and time of the request (mandatory).</li></ul></li><li>2) The search criteria:<ul style="list-style-type: none"><li>• Notification code</li><li>• Name</li><li>• Reference</li><li>• Distributor notification number</li><li>• Manufacturer name</li><li>• Classification code</li><li>• Current date/time</li><li>• Type</li></ul></li></ol>
<b>Output parameters</b>	<ol style="list-style-type: none"><li>1) The information about the response:<ul style="list-style-type: none"><li>• Identification of the response (unique and mandatory).</li><li>• The identification of the request, if the request contains an id.</li><li>• The date and time of the response (mandatory).</li></ul></li><li>2) The results of the request:<ul style="list-style-type: none"><li>• The results of the search, one or more medical device matching the criteria.</li><li>• The status of the search.</li><li>• Possible errors including the error code and its description.</li></ul></li></ol>
<b>Post-condition</b>	The request is logged.
<b>Possible exceptions</b>	<ol style="list-style-type: none"><li>1) Technical error.</li><li>2) Business error:<ul style="list-style-type: none"><li>• Invalid search criteria.</li><li>• No results found.</li></ul></li></ol>
<b>Comments</b>	

### 5.2.1.2 Input argument 'SearchMedicalDeviceRequest'



Attribute	Element	Descriptions
Id		Identifier of the request within the caller system. Optional. If the Id is provided then this information must be unique. This Id is used for tracing the request.
IssueInstant		Date and time of the request. Mandatory.Format YYYY-MM-DDThh:mm:ssZ
	NotificationCode	The unique identifier, notification code, of the distributed medical device.

	Name	The medical device name.
	FAMHPDeviceCode	The unique identifier of the medical device assigned by the federal agency for medicines and health products (FAMHP)
	Reference	The medical device reference, defined by the manufacturer.
	DistributorNotificationNumber	The AFMPS distributor notification number, as registered by the federal agency for medicines and health products.
	DistributorName	The name of the distributor.
	ManufacturerName	The name of the manufacturer.
	ClassificationCode	The classification code. This code is based on the NIHDI (INAMI/RIZIV) Classification.
	CurrentDateTime	The date time (to retrieve the status of the implant on that date).
	Type	Type of the medical device. Optional. - Allowed values: IMPLANT, OTHER, MOBILE_APP - Implicit value (if field is not in request): IMPLANT - Field is only in the response if it is used in the request

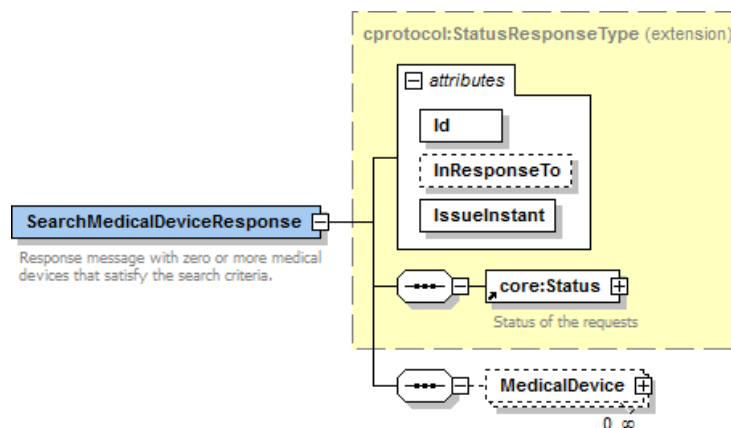
### Example – SearchMedicalDeviceRequest.xml

```

<urn:SearchMedicalDeviceRequest Id="be2bfae2b-0891-4f99-a92a-a652da0a933b"
IssueInstant="2014-02-27T14:27:05.842+01:00">
  <urn:Reference>FJ748</urn:Reference>
  <urn:DistributorNotificationNumber>BECA01100022</urn:DistributorNotificationNumber>
  <urn:DistributorName>MEDICAL</urn:DistributorName>
  <urn:ManufacturerName>ag</urn:ManufacturerName>
  <urn:ClassificationCode>M</urn:ClassificationCode>
  <urn:CurrentDateTime>2014-02-24T00:00:00</urn:CurrentDateTime>
</urn:SearchMedicalDeviceRequest>

```

### 5.2.1.3 Output argument 'SearchMedicalDeviceResponse'



Attribute	Element	Descriptions
Id		Identifier of the response within the responder system. Mandatory. The response message must contain a unique Id for tracing. The service generates this Id upon arrival of the request and use this for all generated log records linked to that request.
InResponseTo		Id attribute of the request. Optional. If the request does not contain an Id, <i>InResponseTo</i> must be left empty.
IssueInstant		Date and time of the request. Mandatory. Format YYYY-MM-DDThh:mm:ssZ
	Status	Information about the status of the request
	MedicalDevice	Information about the medical device

### Example – SearchMedicalDeviceResponse.xml

```

<urn:SearchMedicalDeviceResponse Id="Id-5c6d01600abf4326c44b2625"
IssueInstant="2021-01-15T11:24:28.820+01:00" InResponseTo="be2bfae2b-0891-4f99-
a92a-a652da0a933b" xmlns:urn="urn:be:fgov:health:sadmi:protocol:v3">
  <urn1:Status xmlns:urn1="urn:be:fgov:health:commons:core:v2">
    <urn1:StatusCode Value="urn:be:fgov:health:2.0:status:Success"/>
    <urn1:StatusDetail>
      <urn2:ProviderInfo xmlns:urn2="urn:be:fgov:health:sadmi:core:v3">
        <urn2:Code>SADMI-100</urn2:Code>
        <urn2:Message>SUCCESS</urn2:Message>
      </urn2:ProviderInfo>
    </urn1:StatusDetail>
  </urn1:Status>
  <urn:MedicalDevice>
    <urn1:NotificationCode
xmlns:urn1="urn:be:fgov:health:sadmi:core:v3">000001694629</urn1:NotificationCode>
    <urn1:Name xmlns:urn1="urn:be:fgov:health:sadmi:core:v3">ABC CERVICAL PLATE, 4 HOLE, 20
mm</urn1:Name>
    <urn1:Reference xmlns:urn1="urn:be:fgov:health:sadmi:core:v3">FJ748T</urn1:Reference>
    <urn1:URL
xmlns:urn1="urn:be:fgov:health:sadmi:core:v3">http://www.aesculap.de</urn1:URL>
    <urn1:Distributor xmlns:urn1="urn:be:fgov:health:sadmi:core:v3">
      <urn1:NotificationNumber>BECA01100022</urn1:NotificationNumber>
      <urn1:Name>B. BRAUN MEDICAL</urn1:Name>
    </urn1:Distributor>
    <urn1:Manufacturer xmlns:urn1="urn:be:fgov:health:sadmi:core:v3">
      <urn1:Name>aesculap ag</urn1:Name>
      <urn1:CountryCode standard="ISO-3166-2">DE</urn1:CountryCode>
      <urn1:CountryName xml:lang="NL">Duitsland (Bondsrep.)</urn1:CountryName>
      <urn1:CountryName xml:lang="FR">Allemagne (Rép. féd.)</urn1:CountryName>
      <urn1:CountryName xml:lang="EN">Germany (Fed. Rep.)</urn1:CountryName>
    </urn1:Manufacturer>
    <urn1:Classification xmlns:urn1="urn:be:fgov:health:sadmi:core:v3">
      <urn1:Code>M.02.01.02.01.01.02</urn1:Code>

```

```

    <urn1:Description xml:lang="NL">Skelet en
    spierstelsel//Implantaten voor dewervelkolom//Implantaten voor fusie//Fusie
    via plaat//Cervicaal anterior//Plaat//Niet- resorbeerbaar</urn1:Description>
    <urn1:Description xml:lang="FR">Système musculaire et
    squelette//Implants pour lacolonne vertébrale//Implants pour fusion//Fusion par
    plaque//Cervical antérieur//Plaque//Non- résorbable</urn1:Description>
    <urn1:Description xml:lang="EN">Muscular system and skeleton//spinal
    column implants//Fusion implant//Rod fusion//Cervical , anterior//plate//Non-
    resorbable</urn1:Description>
  </urn1:Classification>
  <urn1:State xmlns:urn1="urn:be:fgov:ehealth:sadmi:core:v3">
    <urn1:Name>PUBLISHED</urn1:Name>
    <urn1:ValidFrom>2009-12-29T00:00:00.000+01:00</urn1:ValidFrom>
  </urn1:State></urn:MedicalDevice></urn:SearchMedicalDeviceResponse>

```

## 5.2.2 Method searchByNotificationCode

### 5.2.2.1 Functional description

<b>Service name</b>	searchByNotificationCode
<b>Purpose</b>	Search one or more distributed medical devices by their unique notification number
<b>Input parameters</b>	<ol style="list-style-type: none"> <li>1) The information about the request: <ul style="list-style-type: none"> <li>• The identification of the request (unique and optional).</li> <li>• The date and time of the request (mandatory).</li> </ul> </li> <li>2) The search criteria: <ul style="list-style-type: none"> <li>• Notification Number(s)</li> </ul> </li> </ol>
<b>Output parameters</b>	<ol style="list-style-type: none"> <li>1) The information about the response: <ul style="list-style-type: none"> <li>• Identification of the response (unique and mandatory).</li> <li>• The identification of the request, if the request contains an id.</li> <li>• The date and time of the response (mandatory).</li> </ul> </li> <li>2) The results of the request: <ul style="list-style-type: none"> <li>• The results of the search, one or more distributed medical devices with therequested notification number(s).</li> <li>• The global status of the bulk search and one status by specific notificationnumber searched.</li> <li>• Possible errors including the error code and its description.</li> </ul> </li> </ol>
<b>Post-condition</b>	The request is logged.
<b>Possible exceptions</b>	<ol style="list-style-type: none"> <li>1) Technical error.</li> <li>2) Business error: <ul style="list-style-type: none"> <li>• Invalid input.</li> <li>• Partially invalid input (bulk search).</li> <li>• No results found.</li> </ul> </li> </ol>
<b>Comments</b>	

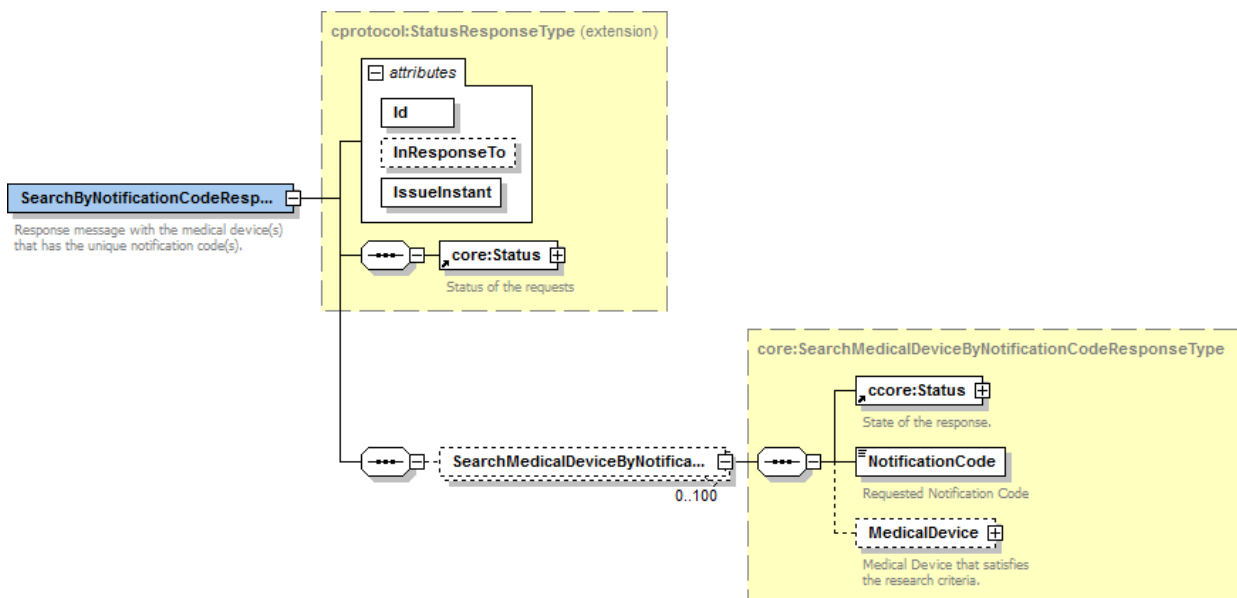
### 5.2.2.2 Input argument 'SearchByNotificationCode'

Attribute	Element	Descriptions
<b>Id</b>		Identifier of the request within the caller system. Optional. If the Id is provided then this information must be unique. This Id is used for tracing the request.
<b>IssueInstant</b>		Date and time of the request. Mandatory. Format YYYY-MM-DDThh:mm:ssZ
	NotificationCode	The unique identifier of the distributed medical device. Complete notification code of a distributed medical device(string type due to leading zeros, total length of 12)

#### Example – SearchByNotificationCodeRequest.xml

```
<urn:SearchByNotificationCodeRequest Id="_1" IssueInstant="2017-09-28T08:20:00Z">
  <!--1 to 100 repetitions:-->
  <urn:NotificationCode>000001694629</urn:NotificationCode>
</urn:SearchByNotificationCodeRequest>
```

### 5.2.2.3 Output argument 'SearchByNotificationCodeResponse'



Attribute	Element	Descriptions
<b>Id</b>		Identifier of the response within the responder system. Mandatory. The response message must contain a unique Id for tracing. The service generates this Id upon arrival of the request and use this for all generated log records linked to that request.
<b>InResponseTo</b>		Id attribute of the request. Optional. If the request does not contain an Id, <i>InResponseTo</i> must be left empty.
<b>IssueInstant</b>		Date and time of the request. Mandatory.Format YYYY-MM-DDThh:mm:ssZ
	Status	Information about the status of the request (See section 5.2.4) In this case a status element is found at 2 levels, it can be global to the bulk request or specific to each notification number searched.
	NotificationCode	The unique identifier of the medical device.
	MedicalDevice	Information about the medical device (See section 5.2.3)

### Example – SearchByNotificationCodeResponse.xml

```

<urn:SearchByNotificationCodeResponse Id="Id-e16f016099aabc5f960a835"
IssueInstant="2021-01-15T11:35:14.297+01:00" InResponseTo="_1"
xmlns:urn="urn:be:fgov:ehealth:sadmi:protocol:v3">
  <urn1:Status xmlns:urn1="urn:be:fgov:ehealth:commons:core:v2">
    <urn1:StatusCode Value="urn:be:fgov:ehealth:2.0:status:Success"/>
    <urn1:StatusDetail>
      <urn2:ProviderInfo xmlns:urn2="urn:be:fgov:ehealth:sadmi:core:v3">
        <urn2:Code>SADMI-100</urn2:Code>
        <urn2:Message>SUCCESS</urn2:Message>
      </urn2:ProviderInfo>
    </urn1:StatusDetail>
  </urn1:Status>
  <urn:SearchMedicalDeviceByNotificationCodeResponse>
    <urn1:Status xmlns:urn1="urn:be:fgov:ehealth:commons:core:v2">
      <urn1:StatusCode Value="urn:be:fgov:ehealth:2.0:status:Success"/>
      <urn1:StatusDetail>
        <urn2:ProviderInfo xmlns:urn2="urn:be:fgov:ehealth:sadmi:core:v3">
          <urn2:Code>SADMI-100</urn2:Code>
          <urn2:Message>SUCCESS</urn2:Message>
        </urn2:ProviderInfo>
      </urn1:StatusDetail>
    </urn1:Status>
    <urn1:NotificationCode
xmlns:urn1="urn:be:fgov:ehealth:sadmi:core:v3">000001694629</urn1:NotificationCode>
    <urn1:MedicalDevice xmlns:urn1="urn:be:fgov:ehealth:sadmi:core:v3">
      <urn1:NotificationCode>000001694629</urn1:NotificationCode>
      <urn1:Name>ABC CERVICAL PLATE, 4 HOLE, 20 mm</urn1:Name>
    </urn1:MedicalDevice>
  </urn:SearchMedicalDeviceByNotificationCodeResponse>
</urn:SearchByNotificationCodeResponse>

```



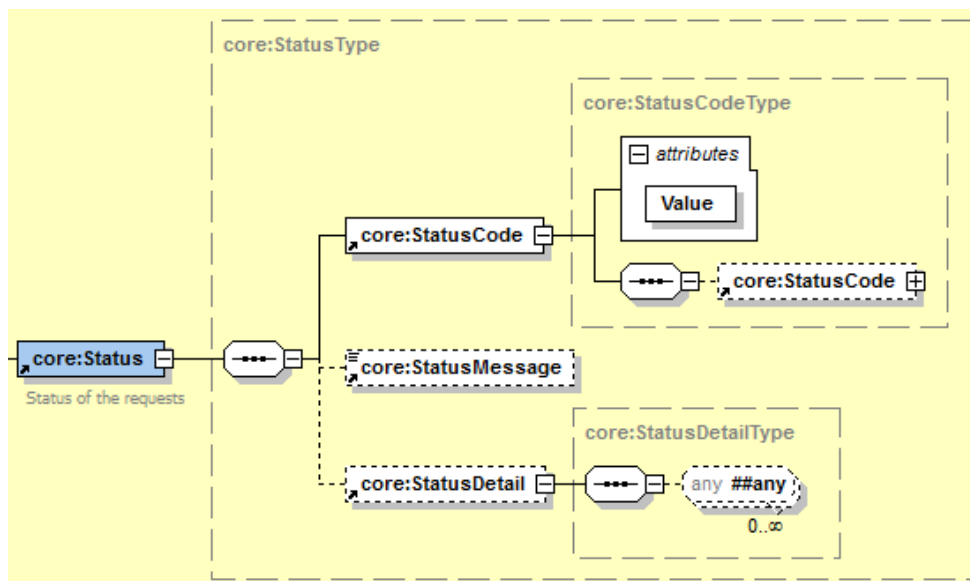
```

<urn1:Reference>FJ748T</urn1:Reference>
<urn1:URL>http://www.aesculap.de</urn1:URL>
<urn1:Distributor>
  <urn1:NotificationNumber>BECA01100022</urn1:NotificationNumber>
  <urn1:Name>B. BRAUN MEDICAL</urn1:Name>
</urn1:Distributor>
<urn1:Manufacturer>
  <urn1:Name>aesculap ag</urn1:Name>
  <urn1:CountryCode standard="ISO-3166-2">DE</urn1:CountryCode>
  <urn1:CountryName xml:lang="NL">Duitsland (Bondsrep.)</urn1:CountryName>
  <urn1:CountryName xml:lang="FR">Allemagne (Rép. féd.)</urn1:CountryName>
  <urn1:CountryName xml:lang="EN">Germany (Fed. Rep.)</urn1:CountryName>
</urn1:Manufacturer>
<urn1:Classification>
  <urn1:Code>M.02.01.02.01.01.02</urn1:Code>
  <urn1:Description xml:lang="NL">Skelet en
  spierstelsel//Implantaten voor dewervelkolom//Implantaten voor fusie//Fusie via
  plaat//Cervicaal anterieur//Plaat//Niet- resorbbeerbaar</urn1:Description>
  <urn1:Description xml:lang="FR">Système musculaire et
  squelette//Implants pour lacolonne vertébrale//Implants pour fusion//Fusion par
  plaque//Cervical antérieur//Plaque//Non- résorbable</urn1:Description>
  <urn1:Description xml:lang="EN">Muscular system and skeleton//spinal
  column implants//Fusion implant//Rod fusion//Cervical , anterior//plate//Non-
  resorbable</urn1:Description>
</urn1:Classification>
<urn1:State>
  <urn1:Name>PUBLISHED</urn1:Name>
  <urn1:ValidFrom>2009-12-29T00:00:00.000+01:00</urn1:ValidFrom>
</urn1:State>
</urn1:MedicalDevice>
</urn:SearchMedicalDeviceByNotificationCodeResponse>

```

## 5.2.3 Details of messages elements

### 5.2.3.1 Status





This is an element part of the standard eHealth SOA service response, used to indicate the status of the completion of the request. The status is represented by a *StatusCode* and optionally the message describing the status. Additional detail gives extra information on the encountered business errors returned by the target service.

*StatusCode* is recursive; therefore *StatusCode* (level 1) could be embedded by an optional sub *StatusCode* (sublevel). Each *StatusCode* must have a value attribute and there must be at least a level 1 *StatusCode*.

The response returns at least Level 1 *StatusCode* with one of the following values:

URI	Description
'urn:be:fgov:ehhealth:2.0:status:Success'	Completion of the request without errors.
'urn:be:fgov:ehhealth:2.0:status:Requester'	Completion of the request with errors caused by the WS consumer.
'urn:be:fgov:ehhealth:2.0:status:Responder'	Completion of the request with errors caused by the WS provider.

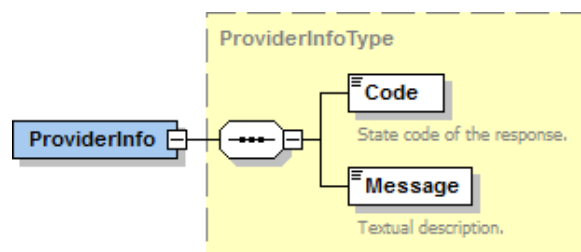
The optional Level 2 *StatusCode*, if returned, may have different values indicating specific cause of the error such as invalid input, missing input, data not found etc.

URI	Description
'urn:be:fgov:ehhealth:2.0:status:Undetermined'	Unknown error.
'urn:be:fgov:ehhealth:2.0:status:InvalidInput'	Invalid input error.
'urn:be:fgov:ehhealth:2.0:status:MissingInput'	Missing input.
'urn:be:fgov:ehhealth:2.0:status:DataNotFound'	No results for the request.
'urn:be:fgov:ehhealth:2.0:status:RequestDenied'	Unauthorized request (business level).
'urn:be:fgov:ehhealth:2.0:status:RequestUnsupported'	Service does not support the request.

### 5.2.3.2 ProviderInfo

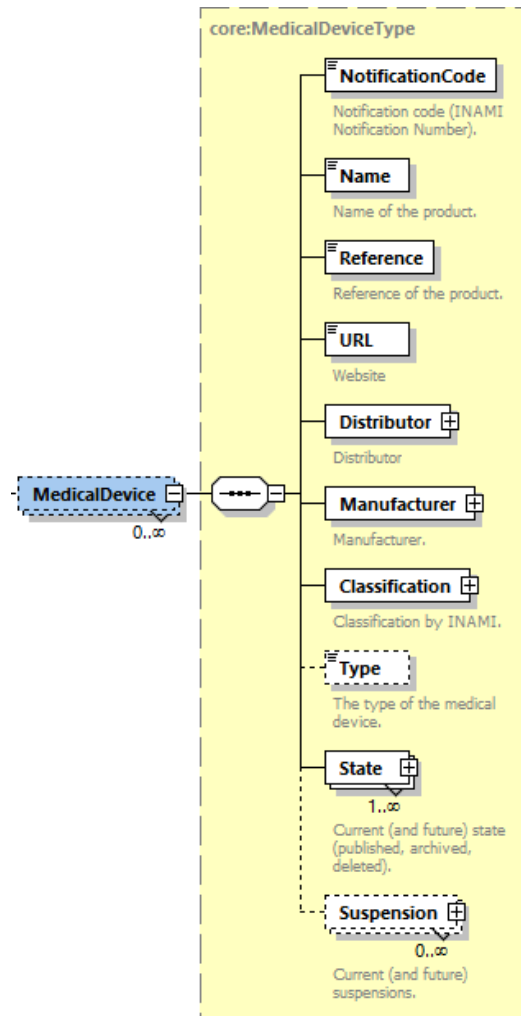
Inside the standard eHealth status there is an element *ProviderInfo* used in the present case to forward the original status coming from the target service behind the bus.

This element is composed of a code and a message.



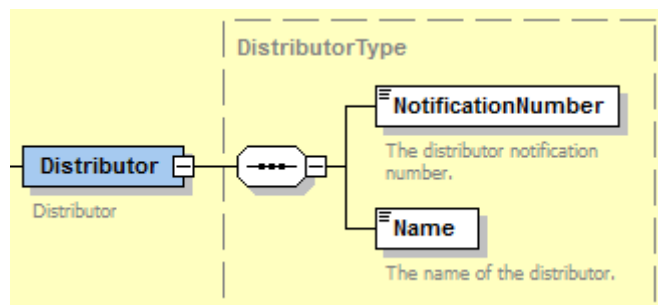
### 5.2.3.3 MedicalDevice

Element containing all the information about a MedicalDevice.



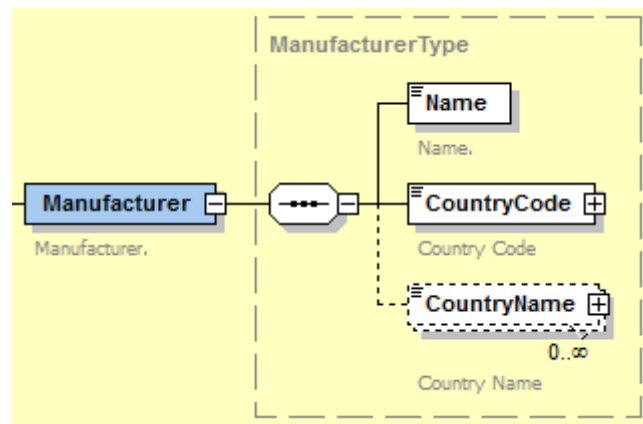
### 5.2.3.4 Distributor

The element distributor is composed of a Distributor NotificationNumber (its identifier) and a name.



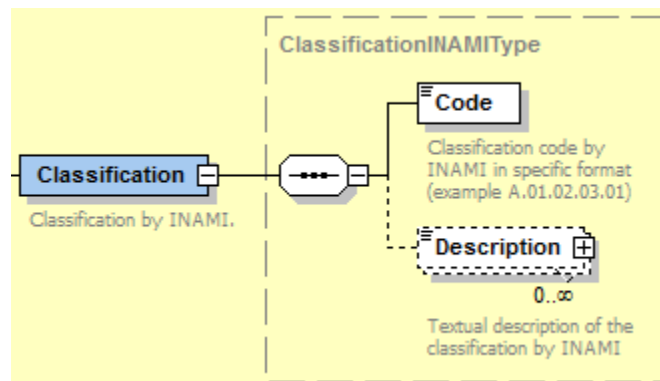
### 5.2.3.5 Manufacturer

The element Manufacturer is composed of a name, a country code following standard format ISO3566 and a country name in languages NL, FR, EN.



### 5.2.3.6 Classification

The element for INAMI classification is composed of a code and a description in languages NL, FR, EN



### 5.2.3.7 Type

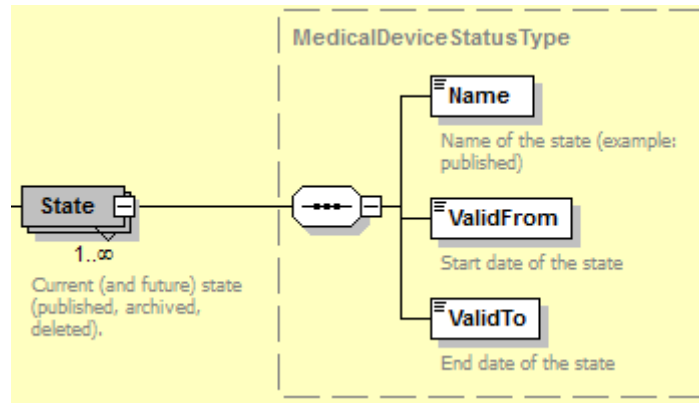
The Type element will only be returned if it was used in the request.

The allowed values for element Type are: IMPLANT, OTHER, MOBILE\_APP

When the Type element is not in the request, "IMPLANT" is the implicit value. This was to achieve backward compatibility with previous versions that only allowed implantable medical devices to be returned.

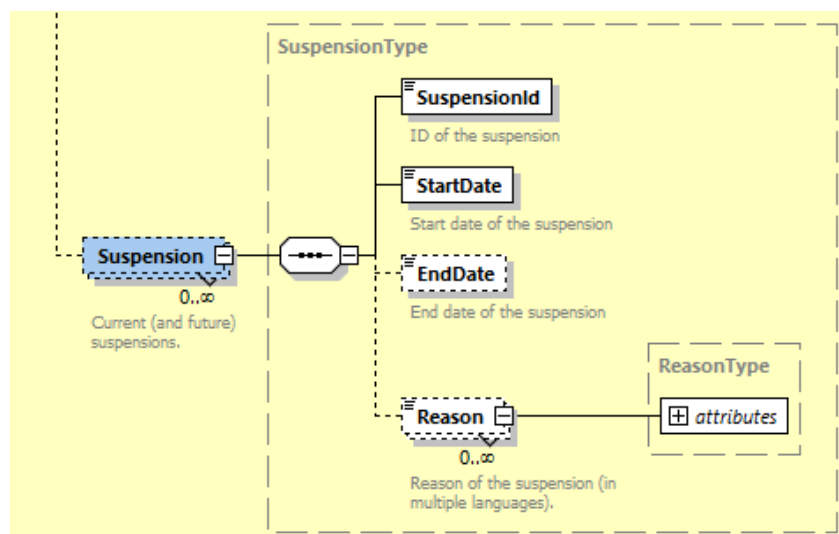
### 5.2.3.8 State

Element describing the status of a medical device, and its validity dates.



### 5.2.3.9 Suspension

Element describing the details of any suspension, and its validity dates.



```
<urn1:Suspension>
  <urn1:SuspensionId>50</urn1:SuspensionId>
  <urn1:StartDate>2010-08-23T00:00:00.000+02:00</urn1:StartDate>
  <urn1:Reason xml:lang="nl">Het is een hechtmateriaal en niet een implantaat</urn1:Reason>
  <urn1:Reason xml:lang="fr">Il s'agit d'un matériel de suture et non d'un implant</urn1:Reason>
  <urn1:Reason xml:lang="en">Reason not available</urn1:Reason>
</urn1:Suspension>
```

## 6. Risks and security

### 6.1 Security

#### 6.1.1 Business security

In case the development adds an additional use case based on an existing integration, the eHealth platform must be informed at least one month in advance with a detailed estimate of the expected load in order to ensure an effective capacity management.

When technical issues occur on the WS, the partner can obtain support from the contact centre (see Chap 3)

**If the eHealth platform should find a bug or vulnerability in its software, the partner must update his application with the latest version of the software, within ten (10) business days.**  
**If the partner finds a bug or vulnerability in the software or web service made available by the eHealth platform, he is obliged to contact and inform us immediately. He is not allowed, under any circumstances, to publish this bug or vulnerability.**

#### 6.1.2 Web service

WS security used in this manner is in accordance with the common standards. Your call will provide:

- SSL one way
- Time-to-live of the message: one minute. Note that the time-to-live is the time difference between the Created and Expires elements in the Timestamp and is not related to the timeout setting on the eHealth ESB, etc. This means that the eHealth platform will process the message if it is received within the time-to-live value (there is also tolerance of 5 minutes to account for the clock skew), but the actual response time may be greater than one minute in some situations (see the SLA for more details).
- Signature of the timestamp and body. This will allow the eHealth platform to verify the integrity of the message and the identity of the message author.
- No encryption on the message.

#### 6.1.3 The use of username, password and token

The username, password and token are strictly personal and are not allowed to transfer.

Every user takes care of his username, password and token and is forced to confidentiality of it.

Every user is also responsible of every use including the use by a third party, until the inactivation.

# 7. Test and release procedure

## 7.1 Procedure

This chapter explains the procedures for testing and releasing an application in acceptance or production.

### 7.1.1 Initiation

If you intend to use a service from the eHealth platform, please contact [info@ehealth.fgov.be](mailto:info@ehealth.fgov.be). The Project department will provide you with the necessary information and mandatory documents.

### 7.1.2 Development and test procedure

You have to develop a client in order to connect to our WS. Most of the required integration info is published on the portal of the eHealth platform.

The eHealth platform recommends performing tests of the WS in acceptance environment first.

### 7.1.3 Release procedure

When development tests are successful, you can request to access the acceptance environment of the eHealth platform.

From this moment, you start integration and acceptance tests. The eHealth platform suggests testing during minimum one month.

After successful acceptance tests, the partner sends his test results and performance results with a sample of “eHealth request” and “eHealth answer” by email to the point of contact at the eHealth platform.

Then eHealth platform and the partner agree on a release date. The eHealth platform prepares the connection to the production environment and provides the partner with the necessary information. During the release day, the partner provides the eHealth platform with feedback on the test and performance tests.

For further information and instructions, please contact: [integration@ehealth.fgov.be](mailto:integration@ehealth.fgov.be).

### 7.1.4 Operational follow-up

Once in production, the partner using the service for one of its applications will always test first in the acceptance environment before releasing any adaptations of its application in production. In addition, he will inform the eHealth platform on the progress and test period.

## 7.2 Test cases

The eHealth platform recommends performing tests (including negative cases) for

- *searchMedicalDevice*
- *searchBysDistributorNotificationNumber*

Basic test data can be provided on request by the eHealth platform.



## 8. Error and failure messages

There are three different possible types of response:

- If there are no technical or business errors, business response is returned.
- If a business error occurred, it is contained in a business response that undergoes a regular transformation<sup>22</sup>, the same case as no error (see table 1, table 2).
- In the case of a technical error, a SOAP fault exception is returned (see table 3).

### 8.1 Business errors

Business errors are forwarded and mapped to eHealth standard status message (See section 5.2.3). Business errors are described by the status code level 1 and 2 and the status message.

In addition to this, the original error from the target service is forwarded inside the status details.

#### Description of SADMI-ABIMD business errors

Status code level 1	Status code level 2	Description
urn:be:fgov:ehealth:2.0:status:Success	urn:be:fgov:ehealth:2.0:status:DataNotFound	The search returned no results for the request.
urn:be:fgov:ehealth:2.0:status:Requester	urn:be:fgov:ehealth:2.0:status:Indeterminate	Part of the bulk search returned an error.
urn:be:fgov:ehealth:2.0:status:Requester	urn:be:fgov:ehealth:2.0:status:InvalidInput	Search input validation failed.

---

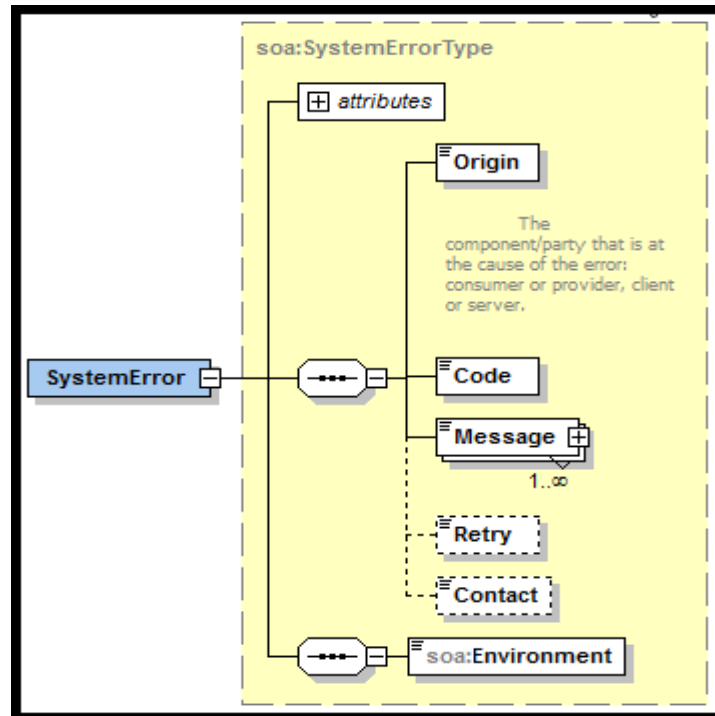
<sup>2</sup> Please refer to the paragraph 5.2.1.3 and 5.2.4.3

## 8.2 Technical errors

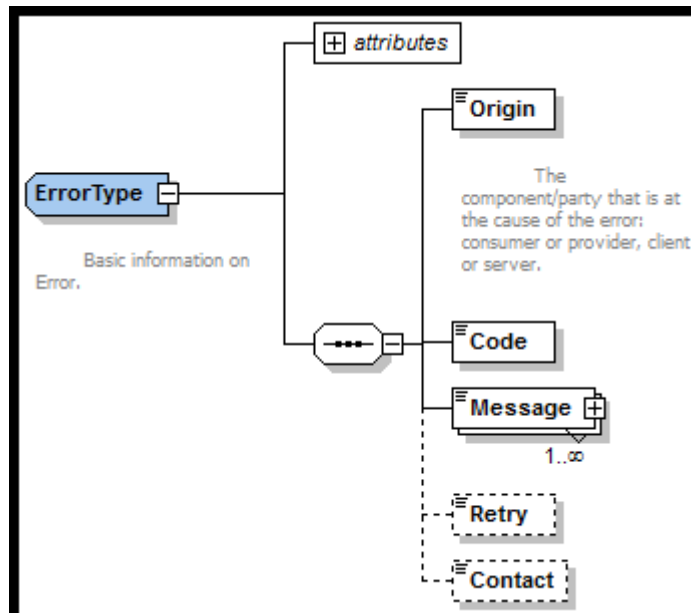
Technical errors are errors inherent to the internal working of a web service. They are returned as SOAP Faults. In case of a technical error, you can contact the eHealth platform.

The structure is as follows:

- **ehealth-errors-chema-soa-1\_1.xsd**



- **ehealth-errors-schema-core-1\_1.xsd**





The SOAP Fault element has the following sub elements:

Element name	Descriptions	Optionality
Faultcode	A code for identifying the fault	Mandatory
Faultstring	A human readable explanation of the fault	Mandatory
Faultactor	Information about who caused the fault to happen (the origin)	Optional
Detail	Holds application specific error information related to the Body element. For example, it could include a java stack trace or any other kind of trace, used internally, to document on the cause of this error.	Optional

The default SOAP fault code values are defined in an extensible manner that allows for new SOAP fault code values to be defined while maintaining backwards compatibility with existing fault code values.

Element name	Descriptions
VersionMismatch	Found an invalid namespace for the SOAP Envelope element.
MustUnderstand	An immediate child element of the Header element, with the mustUnderstand attribute set to "1", was not understood.
Client	The message was incorrectly formed or contained incorrect information.
Server	There was a problem with the server so the message could not proceed.

### Description of the possible SOAP fault exceptions

Error code	Component	Description	Solution/Explanation
SOA-00001	?	Service error	This is the default error sent to the consumer in case no more details are known.
SOA-01001	Consumer	Service call not authenticated	From the security information provided, <ul style="list-style-type: none"> <li>• or the consumer could not be identified</li> <li>• or the credentials provided are not correct</li> </ul>
SOA-01002	Consumer	Service call not authorized	The consumer is identified and authenticated, but is not allowed to call the given service.
SOA-02001	Provider	Service not available. Please contact service desk	An unexpected error has occurred <ul style="list-style-type: none"> <li>• Retries will not work</li> <li>• Service desk may help with root cause analysis</li> </ul>
SOA-02002	Provider	Service temporarily not available. Please retry later	An unexpected error has occurred <ul style="list-style-type: none"> <li>• Retries should work</li> <li>• If the problem persists service desk may help</li> </ul>
SOA-03001	Consumer	Malformed message	This is default error for content related errors in case no more details are known.
SOA-03002	Consumer	Message must be SOAP	Message does not respect the SOAP standard
SOA-03003	Consumer	Message must contain	Message respects the SOAP standard, but body is

		SOAP body	missing
SOA-03004	Consumer	WS-I compliance failure	Message does not respect the WS-I standard
SOA-03005	Consumer	WSDL compliance failure	Message is not compliant with WSDL in Registry/Repository
SOA-03006	Consumer	XSD compliance failure	Message is not compliant with XSD in Registry/Repository
SOA-03007	Consumer	Message content validation failure	From the message content (conform XSD): <ul style="list-style-type: none"> <li>Extended checks on the element format failed</li> <li>Cross-checks between fields failed</li> </ul>

The soap header (only when the received response is not a SOAP fault) contains a message ID, e.g.:

```
<soapenv:Header>
```

```
  <add:MessageID xmlns:add="http://www.w3.org/2005/08/addressing">6f23cd40-09d2-4d86-
b674-b311f6bdf4a3</add:MessageID>
```

```
</soapenv:Header>
```

This message ID is important for tracking of the errors. It should be provided (when available) when requesting support

**Example:**

```
<?xml version="1.0" encoding="UTF-8"?>
<soapenv:Envelope>
  <soapenv:Body>
    <soapenv:Fault>
      <faultcode>soapenv:Client</faultcode>
      <faultstring>SOA-01001</faultstring>
      <detail>
        <soa:SystemError Id="48da1f13-cbc2-40e9-9907-33cc52deabf0">
          <Origin>Consumer</Origin>
          <Code>SOA-01001</Code>
          <Message xml:lang="en">Service call not authenticated.</Message>
          <soa:Environment>Acceptation</soa:Environment>
        </soa:SystemError>
      </detail>
    </soapenv:Fault>
  </soapenv:Body>
</soapenv:Envelope>
```