eHealth Business Continuity Plan Cookbook

Version 1.5

This document is provided to you free of charge by the

eHealth platform

Willebroekkaai 38 – 1000 Brussel

38, Quai de Willebroek – 1000 Bruxelles

Table of contents

To the attention of: "IT expert" willing to integrate this web service.

1. Document management

1.1 Document history

Version	Date	Author	Description of changes / remarks
1	15/06/2016	eHealth platform	Initial version
1.1	20/03/2018	eHealth platform	Lay-out and links
1.2	13/09/2018	eHealth platform	Interface adaptation – ServiceList v2 – management of caching
1.3	04/07/2019	eHealth platform	Section 8 “Errors and failure messages” updated to avoid confusion
1.4	04/10/2021	eHealth platform	Detailing logic for HTTP 500 faults
1.5	20/08/2024	eHealth-platform	§ 5 Process – Step by step: Pt 4 correction

2. Introduction

2.1 Goal of the service

To ensure *business continuity,* recover critical applications, and enhance the availability of eHealth services, the eHealth platform offers end-users an online, downloadable and up-to-date XML file[1]. This file contains a *list of services* with the following information for each service:

- *The name of the service and their UDDI key.*
- *A list of the endpoints* of the service including the main endpoint (currently used to invoke the service) and the recovery endpoints (used in case of failure the main endpoint). For each endpoint the **status of its activity** (ACTIVE or INACTIVE) is provided. If the main endpoint is inactive due to i.e. service errors[2]; the end-users can use the active recovery endpoints by *respecting the sequence number* to recover their service.
- *An optional cache strategy* for the service including the key (the unique identifiers) is used to retrieve the correct cached response and the definition of the cache validity. In case of inactivity of the main endpoint due to i.e. service errors, end-users can consult their local cache according to the cache strategy
- *An XML signature* signed by the eHealth platform whose purpose is to ensure the authenticity, the integrity and the non-repudiation of the published file.

The procedures and the description of the XML file are described in the next paragraphs.

2.2 Goal of the document

In this document, we explain the procedures of the recovering, the structure and the content aspects of the XML file. An example is provided to illustrate the XML file. A list of possible errors encountered by the end-users while invoking the services is also included.

This document is not a development or programming guide for internal applications. Instead, it provides functional and technical information to enable an organization to integrate and use the eHealth platform service.

However, ensure smooth, consistent and risk controlled interactions with a maximum number of partners, these partners must commit to complying with the specifications, data format and release processes of the eHealth platform as described in this document.

Both technical and business requirements must be met, to enable the integration and validation of the eHealth platform service in the client application.

2.3 Document references

pm

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.

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[1] *The file name , the download location are described in Par 4*

[2] *The possible errors are provided in Par 8*

ID	Title	Source
1	XML-Signature Syntax and Processing	***http://www.w3.org/TR/2002/REC-xmldsig-core-20020212/Overview***
2	HTTP errors	***https://www.w3.org/Protocols/rfc2616/rfc2616-sec10.html*** ***https://httpstatuses.com/***

3. Business and privacy requirements

3.1 Helpdesk eHealth platform

3.1.1 Certificates

To access the secured eHealth platform environment you must obtain an eHealth platform certificate,which is used to identify the initiator of the request. If 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***
- Production: ***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***
- *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

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***

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

Currently, two solutions are proposed to ensure the business continuity in case of disruption of the eHealth services:

1) Solution based on an URL switch

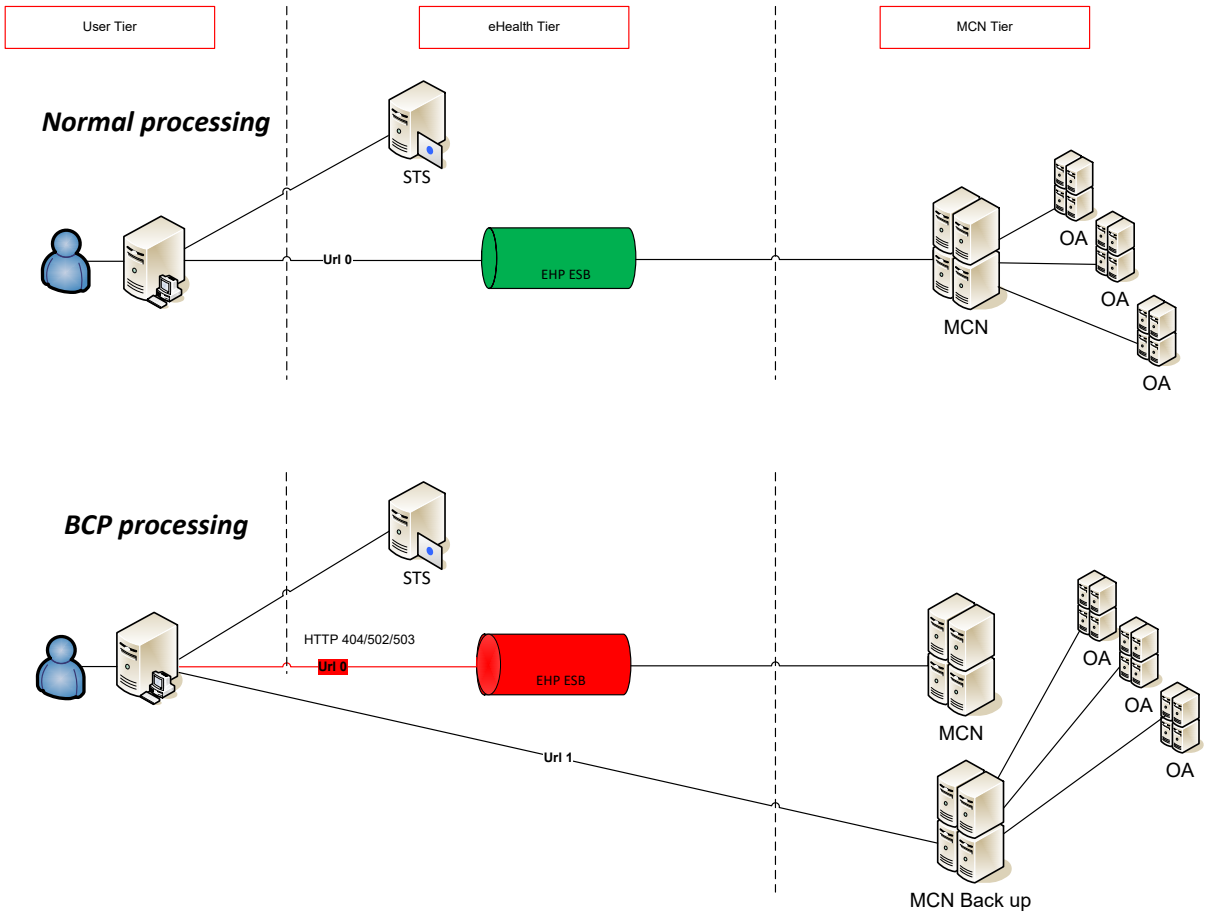


Figure 1: Normal processing vs BCP processing overview (no cache strategy)

2) Solution based on cache consultation

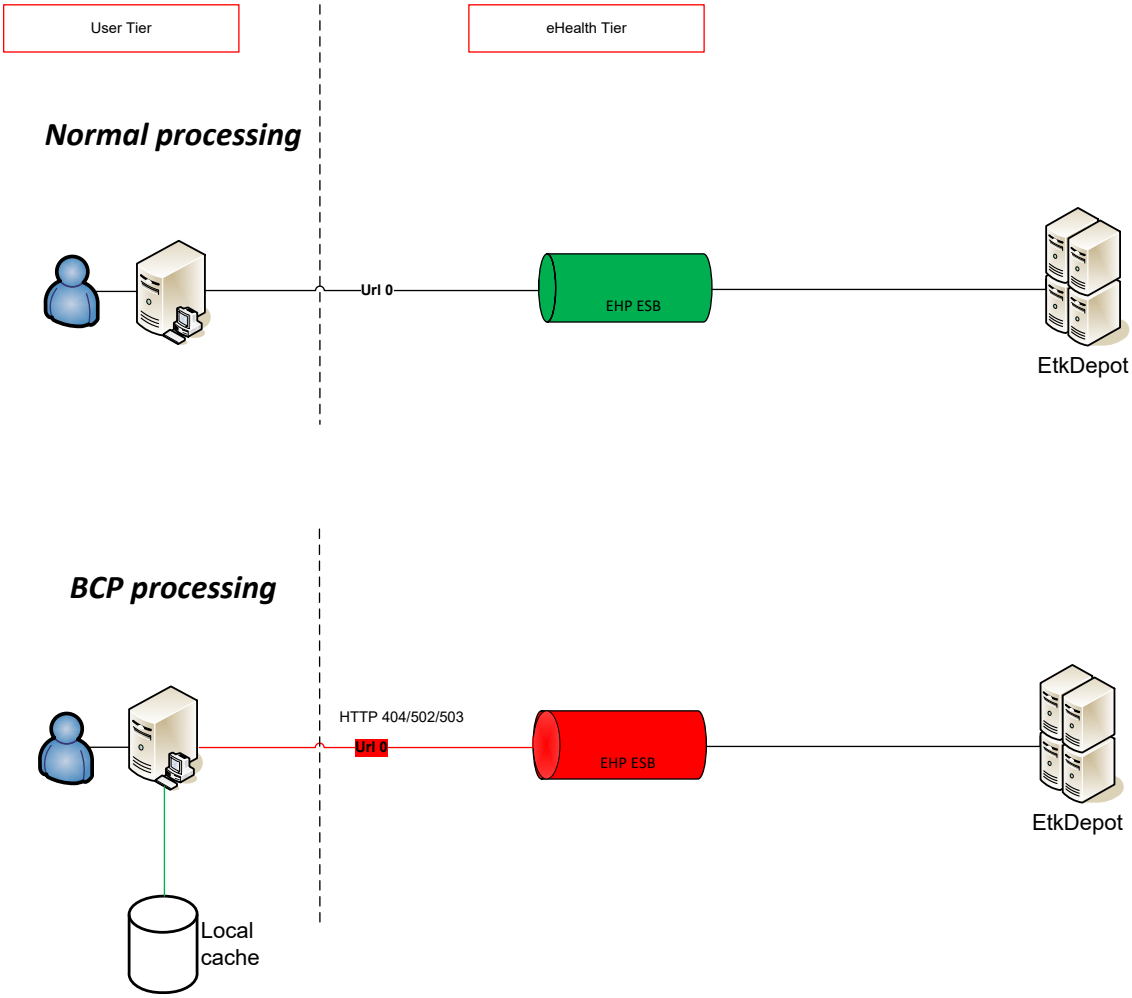


Figure 2: Normal processing vs BCP processing overview (with cache strategy)

5. Process - Step by Step

Solution based on an URL switch

1. The name of the files and the download location access can be requested at the eHealth Service Management by:

- eMail: ***ehealth_service_management@ehealth.fgov.be***
- Subject: Business & Disaster Recovery (BCP/DRP) – Access request
- Phone: + 32 2 891 8603

2. Once access is granted, at the start of day (SOD) and before invoking any eHealth services, the end-user must download two (2) files:

- The file F1 with the list of the services.
- The file F2 whose content is the hash data (SHA) of the F1.

3. As soon as errors[3] are encountered while invoking the services, the end-user must open the file *F1* to find the proposed recovery endpoints then switch to the next one *by respecting the sequence number* to recover their business.

4. At regular intervals[4], for example every fifteen (15) minutes, the end-user must download the latest version of file *F2* and compare it with the previous version. If there are differences, the end-user must download the new version of the service list *F1* to know the latest status of the service endpoints and to take appropriate actions such as. switching back to the main endpoint if it has been restored ACTIVE.

Example

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<n1:ServiceList xmlns:n1="urn:be:fgov:ehealth:bcp:protocol:v2" Id="_f4d25220-02f9-4cc4-94b7-89b7a3cfde96" IssueInstant="2001-12-17T09:30:47Z" Environment="ACCEPTANCE">
        <n1:Service Id="urn:be:fgov:ehealth:serviceexample:1" Name="ServiceExample">
                <n1:EndpointList>
                        <Endpoint Status="ACTIVE" Order="0">https://services-acpt.ehealth.fgov.be/ServiceExample/v1</Endpoint>
    <Endpoint Status="INACTIVE" Order="1">https://services-acpt.ehealth.fgov.be/ServiceExample_01/v1</Endpoint>
    <Endpoint Status="INACTIVE" Order="2">https://services-acpt.ehealth.fgov.be/ServiceExample_02/v1</Endpoint>
    <Endpoint Status="INACTIVE " Order="3">https://services-acpt.ehealth.fgov.be/ServiceExample_03/v1</Endpoint>
                        </n1:EndpointList>
        …….
```

[3] *The possible errors are provided in the Par 8*

[4] *The time interval is defined and communicated by eHealth Service Management*

In this example, the invoked service is '*ServiceExample*' and the invoked main endpoint is

<Endpoint Status="ACTIVE" Order="0">https://services-acpt.ehealth.fgov.be/ServiceExample/v1</Endpoint>

As soon as an error[5] is encountered, the end-user must open the downloaded ***F1*** to switch to the recovery endpoint by respecting the sequence number.

5. Step ***3*** and step ***4*** may only be performed when the service encounters one the errors described in the paragraph 7.

6. If all service endpoints, including the main and recovery endpoints, become inactive, the end-user must follow the usual procedure established by the eHealth platform which is the procedure before the introduction of the eHealth Business Continuity Plan.

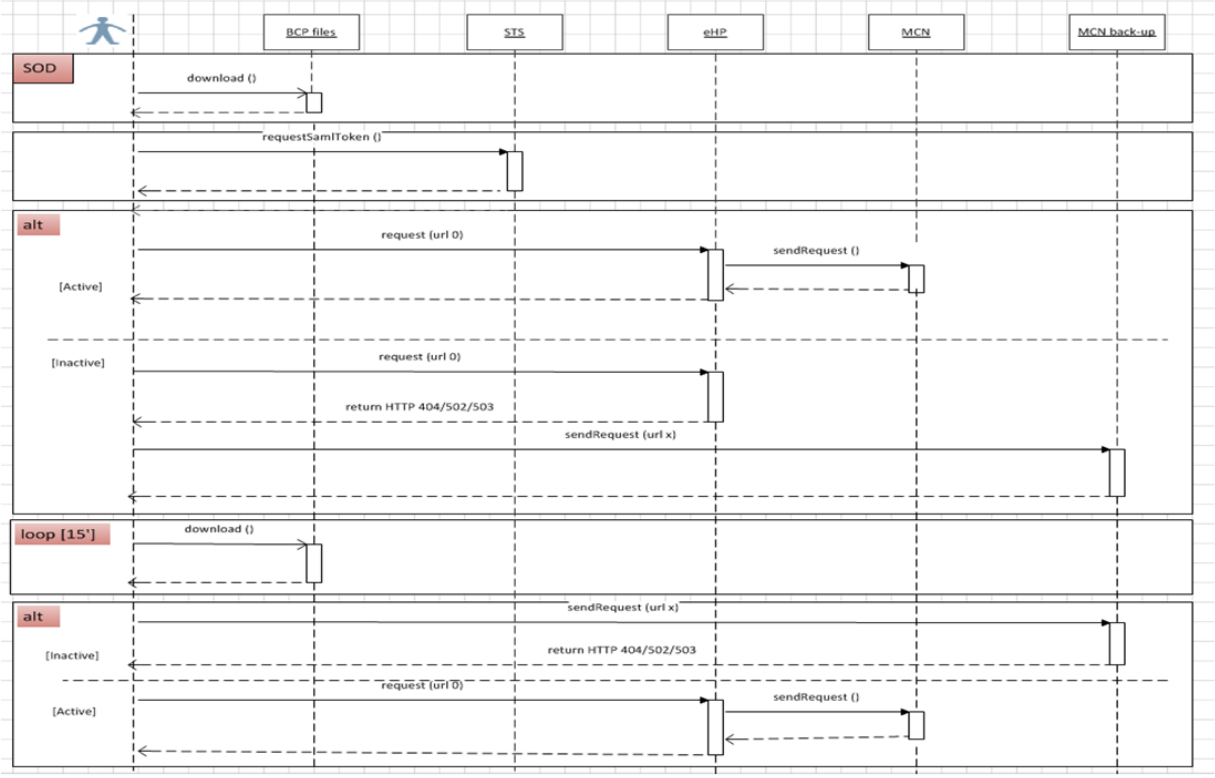


***Figure 2*:** BCP sequence diagram

[5] *The possible errors are provided in the paragraph 8*

Solution based on cache consultation

1. The name of the files and the download location access must be requested at eHealth Service Management by:

- eMail: ***ehealth_service_management@ehealth.fgov.be***
- Subject: Business & Disaster Recovery (BCP/DRP) – Access request
- Phone: + 32 2 891 8603

2. Once access is granted, at the start of day (SOD) and before invoking any eHealth services, the end-user must download two (2) files:

- The file F1 with the list of the services.
- The file F2 whose content is the hash data (SHA) of the F1.

3. The end-user must open the file *F1* to know the proposed cache strategy:

ENDPOINT_FIRST: The end user must use the main endpoint of the concerned eHealth service. As soon as an error[6] is encountered, he must consult his local cache by using the key(s) mentioned in the file F1 and respecting the expiry conditions.

CACHE_FIRST: The end user must consult his local cache by using the key(s) mentioned in the file F1 and respecting the expiry conditions. If there is no information in his cache, he must call the concerned eHealth service.

NB: For more details on what must be cached, please refer to the cookbook of the eHealth service you intend to use.

[6] *The possible errors are provided in the paragraph 8*

6. XML file description

6.1 Element ServiceList

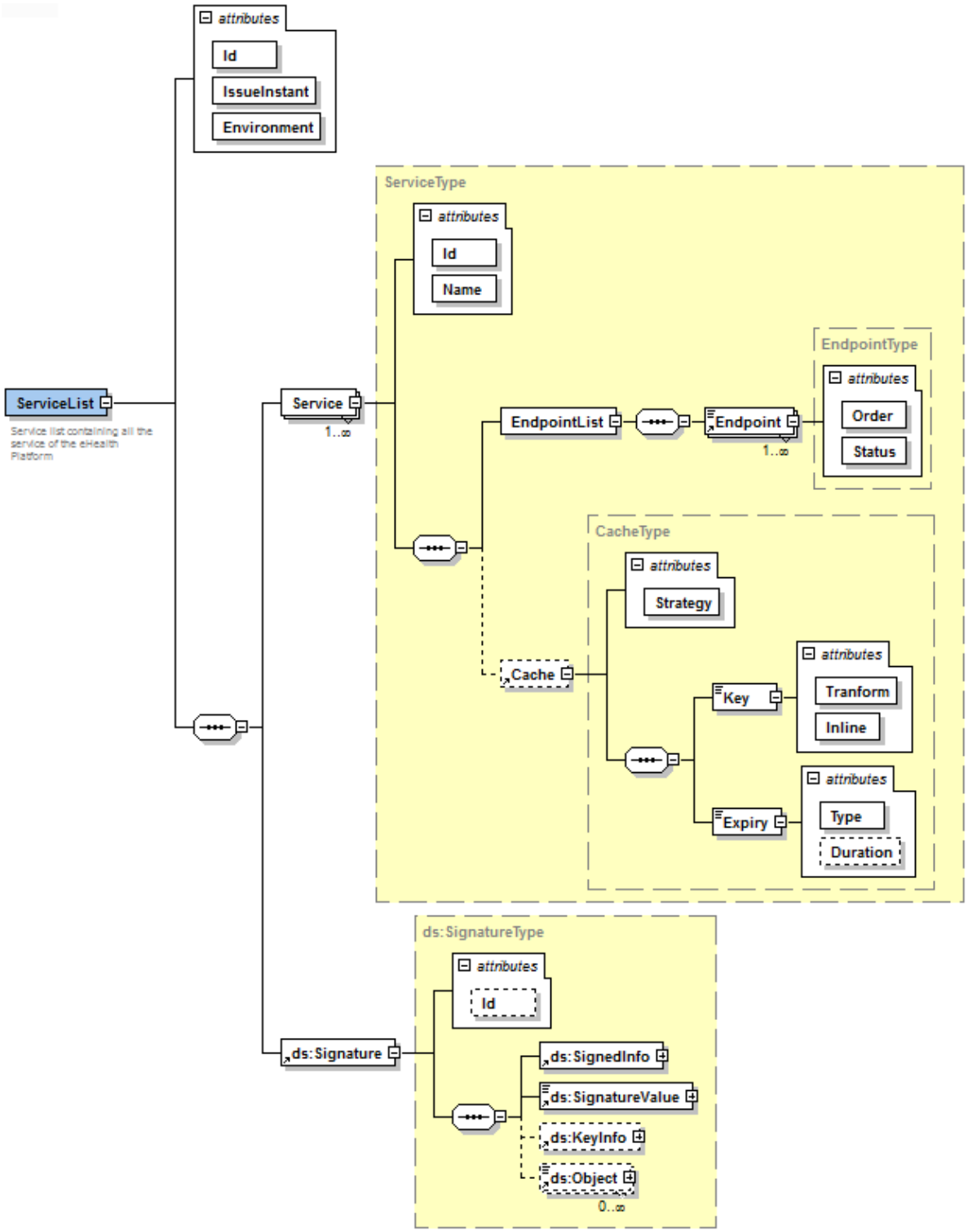
6.1.1 Functional description

Purpose	Provide a list of the services.
XSD	ehealth-bcp-protocol-2_0.xsd

Parameters	• The information about the services
	  – The unique identification of the XML file.
	  – The issue instant.
	  – The environment of the services.
	• The services.
	• The signature.

6.1.2 Definition

The element 'ServiceList' is defined as follows



ServiceList element			
Element	**Attributes**		**Comments**
	Id	Identifier of the file.	- Mandatory - Unique - Used to trace the file.
	IssueInstant	The date and the time of the release of the XML file.	Mandatory. Format YYYY-MM-DDThh:mm:ssZ
	Environment	The environment of the deployed services. (ACCEPTANCE or PRODUCTION)	Mandatory.
Service [1-N]		The information of the service.	Mandatory.
Signature [1]		The information about XML signature.	Mandatory.

6.1.3 Example

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<v2:ServiceList xmlns:v2="urn:be:fgov:ehealth:bcp:protocol:v2"
xmlns:ds="http://www.w3.org/2000/09/xmldsig#" xmlns:n2="http://www.altova.com/samplexml/other-
namespace" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" Environment="text" Id="ID1"
IssueInstant="2001-12-17T09:30:47Z" xsi:schemaLocation="urn:be:fgov:ehealth:bcp:protocol:v2 ehealth-
bcp-protocol-2_0.xsd">
        <v2:Service Id="urn:be:fgov:ehealth:serviceexample:1" Name="ServiceExample">
                <v2:EndpointList>
                        <v2:Endpoint Order="0" Status="ACTIVE">https://services-
acpt.ehealth.fgov.be/ServiceExample/v1</v2:Endpoint>
                        <v2:Endpoint Order="1" Status="INACTIVE">https://services-
acpt.ehealth.fgov.be/ServiceExample_01/v1</v2:Endpoint>
                        <v2:Endpoint Order="2" Status="INACTIVE">https://services-
acpt.ehealth.fgov.be/ServiceExample_02/v1</v2:Endpoint>
                        <v2:Endpoint Order="3" Status="INACTIVE">https://services-
acpt.ehealth.fgov.be/ServiceExample_03/v1</v2:Endpoint>
                </v2:EndpointList>
        </v2:Service>
        <v2:Service Id="uddi:ehealth-fgov-be:business:etkdepot:v1" Name="ETEE depot v1">
                <v2:EndpointList>
                        <v2:Endpoint Order="0"
Status="ACTIVE">http://localhost:6666/EtkDepot/v1</v2:Endpoint>
                </v2:EndpointList>
                <v2:Cache Strategy="ENDPOINT_FIRST">
                        <v2:Key Inline="true" Tranform="xslt"><![CDATA[<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
xmlns:etee="urn:be:fgov:ehealth:etkdepot:1_0:protocol"><xsl:output method="text" version="1.0"
encoding="UTF-8" indent="no"/><xsl:template match="/"><xsl:value-of
select="/etee:GetEtkRequest/etee:SearchCriteria/etee:Identifier/etee:Type"/><xsl:copy>-
</xsl:copy><xsl:value-of
select="/etee:GetEtkRequest/etee:SearchCriteria/etee:Identifier/etee:Value"/><xsl:if
test="/etee:GetEtkRequest/etee:SearchCriteria/etee:Identifier/etee:ApplicationID"><xsl:copy>-
</xsl:copy><xsl:value-of
select="/etee:GetEtkRequest/etee:SearchCriteria/etee:Identifier/etee:ApplicationID"/></xsl:if></xsl:tem
plate></xsl:stylesheet>]]></v2:Key>
                        <v2:Expiry Type="none"/>
                </v2:Cache>
        </v2:Service>
        <ds:Signature Id="xmldsig-8a12aebe-14bd-43a8-a310-71b75d39a1d7">
                <ds:SignedInfo>
                        <ds:CanonicalizationMethod Algorithm="http://www.w3.org/2001/10/xml-exc-
c14n#"/>
                        <ds:SignatureMethod Algorithm="http://www.w3.org/2001/04/xmldsig-more#rsa-
sha256"/>
                        <ds:Reference URI="#ID1">
                                <ds:Transforms>
                                        <ds:Transform
Algorithm="http://www.w3.org/2000/09/xmldsig#enveloped-signature"/>
                                </ds:Transforms>
                                <ds:DigestMethod Algorithm="http://www.w3.org/2001/04/xmlenc#sha256"/>

        <ds:DigestValue>gnnjON/noNdlMNlWu6c/PffRxajM6ohYCCouTzpaxLA=</ds:DigestValue>
                        </ds:Reference>
                        <ds:Reference Type="http://uri.etsi.org/01903#SignedProperties" URI="#xmldsig-
cb9a667d-a7a7-4510-ad68-3e0159fa49d2-xades-signedprops">
                                <ds:Transforms>
                                        <ds:Transform Algorithm="http://www.w3.org/2001/10/xml-exc-
c14n#"/>
                                </ds:Transforms>
                                <ds:DigestMethod Algorithm="http://www.w3.org/2001/04/xmlenc#sha256"/>

        <ds:DigestValue>7oxPbaGUZVue/r/mrRCIMrD4Dg9DpG8g1B2eOtVazsk=</ds:DigestValue>
                        </ds:Reference>
                </ds:SignedInfo>
                <ds:SignatureValue>
KaxcfKZA4XcQdshw2VflKvL7EU5Ae2P5fM……
……

NiVzOjRtDd4b0tASE1vqnzJ0q6efSHu9ELYpMQ==
```

```
</ds:SignatureValue>
                <ds:KeyInfo>
                        <ds:X509Data>
                                <ds:X509Certificate>
MIIFLTCCAxWgAwIBAgIUIklNydfYmsLyaw29…….
……

</ds:X509Certificate>
                                <ds:X509Certificate>
MIIGiDCCBHCgAwIBAgIUF7Q4gdFDVtDVQC9wq…….
……

</ds:X509Certificate>
                        </ds:X509Data>
                </ds:KeyInfo>
                <ds:Object>
                        <QualifyingProperties xmlns="http://uri.etsi.org/01903/v1.3.2#"
xmlns:ns2="http://www.w3.org/2000/09/xmldsig#" Target="#xmldsig-8a12aebe-14bd-43a8-a310-71b75d39a1d7">
                                <SignedProperties Id="xmldsig-cb9a667d-a7a7-4510-ad68-3e0159fa49d2-
xades-signedprops">
                                        <SignedSignatureProperties>
                                                <SigningTime>2018-09-
10T14:37:07.450+02:00</SigningTime>
                                                <SigningCertificate>
                                                        <Cert>
                                                                <CertDigest>
                                                                        <ns2:DigestMethod
Algorithm="http://www.w3.org/2001/04/xmlenc#sha256"/>

        <ns2:DigestValue>JH1fxtjQaxe9cKJ8Tk3EaaFTqSioFU4Pkl5daSIcpJs=</ns2:DigestValue>
                                                                </CertDigest>
                                                                <IssuerSerial>

        <ns2:X509IssuerName>CN=QuoVadis No Reliance ICA G3,O=QuoVadis
Limited,C=BM</ns2:X509IssuerName>

        <ns2:X509SerialNumber>195740416937184470112449663344384009701964275091</ns2:X509SerialNumber>
                                                                </IssuerSerial>
                                                        </Cert>
                                                </SigningCertificate>
                                        </SignedSignatureProperties>
                                </SignedProperties>
                        </QualifyingProperties>
                </ds:Object>
        </ds:Signature>
</v2:ServiceList>
```

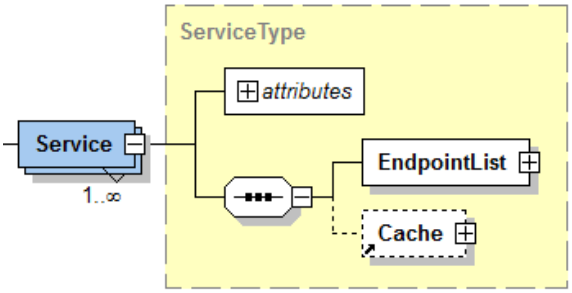
6.2 Element ‘Service’

6.2.1 Functional description

Purpose	Provide the information about the services.
Parameters	For each service, the following information is provided • The identification i.e. the Universal Description, Discovery and Integration (UDDI) of each service. • The name of the service. • A list of the service’s endpoints (the main endpoint and the recovery endpoints). • A cache strategy (optional)

6.2.2 Definition

The element **Service** is defined by the **ServiceType**



Service element			
Element	**Attributes**		**Comments**
	Id	The UDDI key of the service.	Mandatory and unique. The key points to the service and to the service description.
	Name	The name of the service.	Mandatory.
EndpointList		List of the service's endpoints where the service can be accessed by the end-users (the main endpoint and the recovery endpoints).	Mandatory.
Cache		Details about the cache strategy to respect by the end-users	Optional

6.2.3 Example

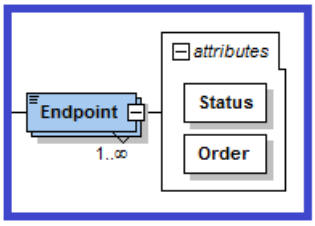
```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<v2:ServiceList xmlns:v2="urn:be:fgov:ehealth:bcp:protocol:v2"
xmlns:ds="http://www.w3.org/2000/09/xmldsig#" xmlns:n2="http://www.altova.com/samplexml/other-
namespace" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" Environment="text" Id="ID1"
IssueInstant="2001-12-17T09:30:47Z" xsi:schemaLocation="urn:be:fgov:ehealth:bcp:protocol:v2 ehealth-
bcp-protocol-2_0.xsd">
        <v2:Service Id="urn:be:fgov:ehealth:serviceexample:1" Name="ServiceExample">
                <v2:EndpointList>
                        <v2:Endpoint Order="0" Status="ACTIVE">https://services-
acpt.ehealth.fgov.be/ServiceExample/v1</v2:Endpoint>
                        <v2:Endpoint Order="1" Status="INACTIVE">https://services-
acpt.ehealth.fgov.be/ServiceExample_01/v1</v2:Endpoint>
                        <v2:Endpoint Order="2" Status="INACTIVE">https://services-
acpt.ehealth.fgov.be/ServiceExample_02/v1</v2:Endpoint>
                        <v2:Endpoint Order="3" Status="INACTIVE">https://services-
acpt.ehealth.fgov.be/ServiceExample_03/v1</v2:Endpoint>
                </v2:EndpointList>
        </v2:Service>
        <v2:Service Id="uddi:ehealth-fgov-be:business:etkdepot:v1" Name="ETEE depot v1">
                <v2:EndpointList>
                        <v2:Endpoint Order="0"
Status="ACTIVE">http://localhost:6666/EtkDepot/v1</v2:Endpoint>
                </v2:EndpointList>
                <v2:Cache Strategy="ENDPOINT_FIRST">
                        <v2:Key Inline="true" Tranform="xslt"><![CDATA[<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
xmlns:etee="urn:be:fgov:ehealth:etkdepot:1_0:protocol"><xsl:output method="text" version="1.0"
encoding="UTF-8" indent="no"/><xsl:template match="/"><xsl:value-of
select="/etee:GetEtkRequest/etee:SearchCriteria/etee:Identifier/etee:Type"/><xsl:copy>-
</xsl:copy><xsl:value-of
select="/etee:GetEtkRequest/etee:SearchCriteria/etee:Identifier/etee:Value"/><xsl:if
test="/etee:GetEtkRequest/etee:SearchCriteria/etee:Identifier/etee:ApplicationID"><xsl:copy>-
</xsl:copy><xsl:value-of
select="/etee:GetEtkRequest/etee:SearchCriteria/etee:Identifier/etee:ApplicationID"/></xsl:if></xsl:tem
plate></xsl:stylesheet>]]></v2:Key>
                        <v2:Expiry Type="none"/>
                </v2:Cache>
        </v2:Service>
        …….
```

6.3 Element ‘Endpoint’

6.3.1 Functional description

Purpose	Provide the URL (Uniform Resource Locator) of the service.
Parameters	For each endpoint, the following information is provided • The status of the endpoint (ACTIVE or INACTIVE) • The sequence number.

6.3.2 Definition



Endpoint element			
Element	**Attributes**		**Comments**
	Status	The status of the endpoint (ACTIVE or INACTIVE).	Mandatory.
	Order	The sequence number of the endpoint	Mandatory.

6.3.3 Example

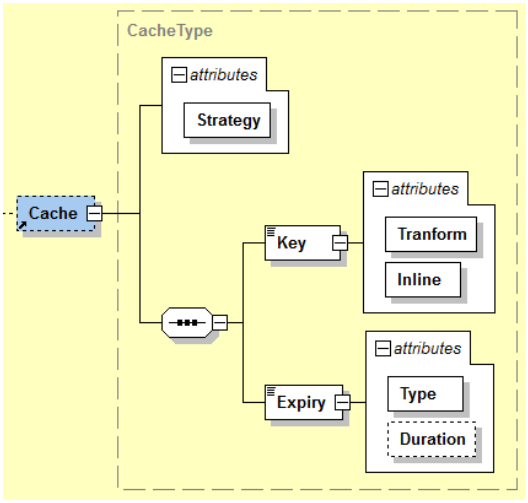
```
<Endpoint Status="INACTIVE" Order="1" >https://services-acpt.ehealth.fgov.be/ServiceExample_01/v1</Endpoint>
```

6.4 Element 'Cache'

6.4.1 Functional description

Purpose	Provide the cache strategy to apply for the service
Parameters	• The specific strategy to respect • The key which allows to use the correct unique identifiers in order to retrieve the correct cached response • The expiry policy to respect for the cache using

6.4.2 Definition



Endpoint element			
Element	**Attributes**		**Comments**
	Strategy	The specific cache strategy to be respected for the service. Currently two values are available: **ENDPOINT_FIRST**: The end user must use the main endpoint of the concerned eHealth service. As soon as an error is encountered, he must consult his local cache.	Mandatory.

		CACHE_FIRST: The end user must consult his local cache. If there is no information in his cache, he must call the involved service.	
Key		The key which specifies the unique identifier(s) the end user must use to retrieve the correct cached response	Mandatory.
Expiry		The expiry policy to be respected for the cache consultation	Mandatory.

6.4.3 Example

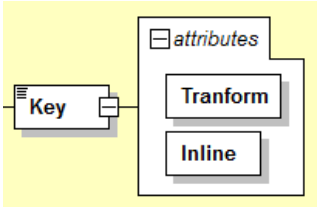
```
<v2:Cache Strategy="ENDPOINT_FIRST">
                        <v2:Key Inline="true" Tranform="xslt"><![CDATA[<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
xmlns:etee="urn:be:fgov:ehealth:etkdepot:1_0:protocol"><xsl:output method="text" version="1.0"
encoding="UTF-8" indent="no"/><xsl:template match="/"><xsl:value-of
select="/etee:GetEtkRequest/etee:SearchCriteria/etee:Identifier/etee:Type"/><xsl:copy>-
</xsl:copy><xsl:value-of
select="/etee:GetEtkRequest/etee:SearchCriteria/etee:Identifier/etee:Value"/><xsl:if
test="/etee:GetEtkRequest/etee:SearchCriteria/etee:Identifier/etee:ApplicationID"><xsl:copy>-
</xsl:copy><xsl:value-of
select="/etee:GetEtkRequest/etee:SearchCriteria/etee:Identifier/etee:ApplicationID"/></xsl:if></xsl:tem
plate></xsl:stylesheet>]]></v2:Key>
                        <v2:Expiry Type="none"/>

                </v2:Cache>
```

6.5 Element 'Key'

6.5.1 Functional description

Purpose	Specifies the unique identifier(s) the end user must use in order to retrieve the correct cached response
Parameters	• The transformation language used to filter/retrieve the unique identifier(s) of the service • The location of the key

6.5.2 Definition



Endpoint element			
Element	**Attributes**		**Comments**
	Transform	The transformation language used to filter/retrieve the unique identifier(s) of the service. (e.g. “xslt”)	Mandatory.
	Inline	Boolean to define the location of the key. **True:** The key (or the xslt by example) is defined in the field “Key” **False:** The field key contains an URL which refers to the xslt	Mandatory.

6.5.3 Example

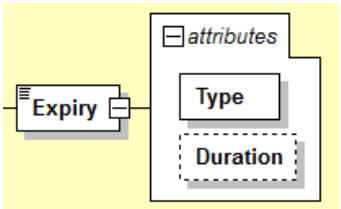
```
<v2:Cache Strategy="ENDPOINT_FIRST">
                        <v2:Key Inline="true" Tranform="xslt"><![CDATA[<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
xmlns:etee="urn:be:fgov:ehealth:etkdepot:1_0:protocol"><xsl:output method="text" version="1.0"
encoding="UTF-8" indent="no"/><xsl:template match="/"><xsl:value-of
select="/etee:GetEtkRequest/etee:SearchCriteria/etee:Identifier/etee:Type"/><xsl:copy>-
</xsl:copy><xsl:value-of
select="/etee:GetEtkRequest/etee:SearchCriteria/etee:Identifier/etee:Value"/><xsl:if
test="/etee:GetEtkRequest/etee:SearchCriteria/etee:Identifier/etee:ApplicationID"><xsl:copy>-
</xsl:copy><xsl:value-of
select="/etee:GetEtkRequest/etee:SearchCriteria/etee:Identifier/etee:ApplicationID"/></xsl:if></xsl:tem
plate></xsl:stylesheet>]]></v2:Key>
```

6.6 Element ‘Expiry’

6.6.1 Functional description

Purpose	The expiry policy to be respected for the cache consultation
Parameters	• The type of expiry policy • The duration of the cache validity before the expiry

6.6.2 Definition



Endpoint element			
Element	**Attributes**		**Comments**
	Type	The type of expiry policy. Two values are currently available: **ttl:** Time To Live (a duration should be specified in attribute “Duration”)	Mandatory

		none: No limit of time for the cache consultation (no duration should be specified in attribute “Duration”)	
	Duration	The duration of the cache validity before the expiry (e.g. PT1H for a duration of 1 hour)	Optional

6.6.3 Example

```
<Expiry Type="ttl" Duration="PT1H"/>
```

6.7 Element ‘Signature’

Please refer to

http://www.w3.org/TR/2002/REC-xmldsig-core-20020212/Overview.html

7. Test and release procedure

7.1 Procedure

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

7.1.1 Initiation

If you intend to use the eHealth service, please contact ***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 need to develop a client to connect to our WS. Most of the information for integration is published on the portal of the eHealth platform.

Upon request and depending on the case, the eHealth platform provides you with a **test case** to test your client before releasing it in the acceptance environment.

7.1.3 Release procedure

When development tests are successful, you can request access to the acceptance environment of the eHealth platform. From this moment, you begin the integration and acceptance tests. The eHealth platform suggests testing a minimum of one month.

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

Once a release date has been agreed upon, the eHealth platform prepares the connection to the production environment and provides the partner with the necessary information. On the release day, the partner provides the eHealth platform with feedback on the test and performance results.

For further information and instructions, please contact: ***integration-support@ehealth.fgov.be***.

7.1.4 Operational follow-up

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

8. Error and failure messages

8.1 HTTP errors

There is only one response codes for which the BCP must not be activated:

- Code 200 – Success

When you receive an **HTTP 500 with a SOAP Fault** associated you should investigate the reason of the SOAP Fault by extracting the SOA error code which can be found in the code tag of the System Error details.

```
<soapenv:Envelope xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/">
    <soapenv:Body>
        <soapenv:Fault>
            <faultcode>soapenv:Client</faultcode>
            <faultstring>SOA-01001</faultstring>
            <detail>
                <SystemError Id="fa9e06a4-b4a6-4788-944e-57f15ec7340e" xmlns="urn:be:fgov:ehealth:errors:soa:v1">
                    <Origin>Consumer</Origin>
                    <code>SOA-01001</code>
                    <Message xml:lang="en">Service call not authenticated.</Message>
                    <Environment>Production</Environment>
                </SystemError>
            </detail>
        </soapenv:Fault>
    </soapenv:Body>
</soapenv:Envelope>
```

If the error code is one of the following you should activate the BCP mechanism

- SOA-02001: Service not available. Please contact service desk.
- SOA-02002: Service temporarily not available. Please try later.

If the certificate or saml token is still valid when you invoke the web service you should also activate the BCP mechanism on one of the following codes:

- SOA-01001: Service call not authenticated.
- SOA-01002: Service call not authorized.

All the other exceptions (HTTP, connection time-out, ...) must activate the BCP.

For more information about the HTTP errors, please refer to

https://www.w3.org/Protocols/rfc2616/rfc2616-sec10.html

https://httpstatuses.com/