eHealth Business Continuity Plan Cookbook

Version 1.4

This document is provided to you free of charge by the

eHealth platform

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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

2. Introduction

2.1 Goal of the service

In order to maintain *business continuity,* to recover critical business applications and to improve availability of eHealth services, the eHealth platform makes available to the end-users an online, downloadable and up-to-date XML file[1]. In this file, the end-users will find a *list of the services* and for each service with following information:

- *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 of the invoking of the main endpoint) and, for each endpoint, the **status of its activity** (ACTIVE or INACTIVE). In case of inactivity of the main endpoint i.e. service encountered errors[2]; the end-users can use the active proposed recovery endpoints by *respecting the sequence number* to recover their service.

- *An optional cache strategy* of the service including the key (the unique identifiers) to use in order to retrieve the correct cached response and the definition of the cache validity. In case of inactivity of the main endpoint i.e. service encountered errors; the end-users can consult their local cache by respecting 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 given to illustrate the XML file. A list of possible errors encountered by the end-users whilst invoking the services has been added.

This information should allow (the IT department of) an organization to automatically recover the services called when the service is not available.

This document is neither a development nor a programming guide for internal applications; eHealth partners 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, eHealth 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.

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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*

2.3 Document references

All the document references can be found on the eHealth portal[3].

ID	Title	Version	Date	Author
	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.

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/*

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[3] *https://www.ehealth.fgov.be/ehealthplatform*

3. Business and privacy requirements

3.1 For issues in production

eHealth platform contact center:

- Phone: 02/788 51 55

- 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)

3.2 For issues in acceptance

Integration-support@ehealth.fgov.be

3.3 For business issues

- regarding an existing project: the project manager in charge of the application or service

- regarding a new project and other business issues: ***info@ehealth.fgov.be***

3.4 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***

    Production: ***support@ehealth.fgov.be***

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

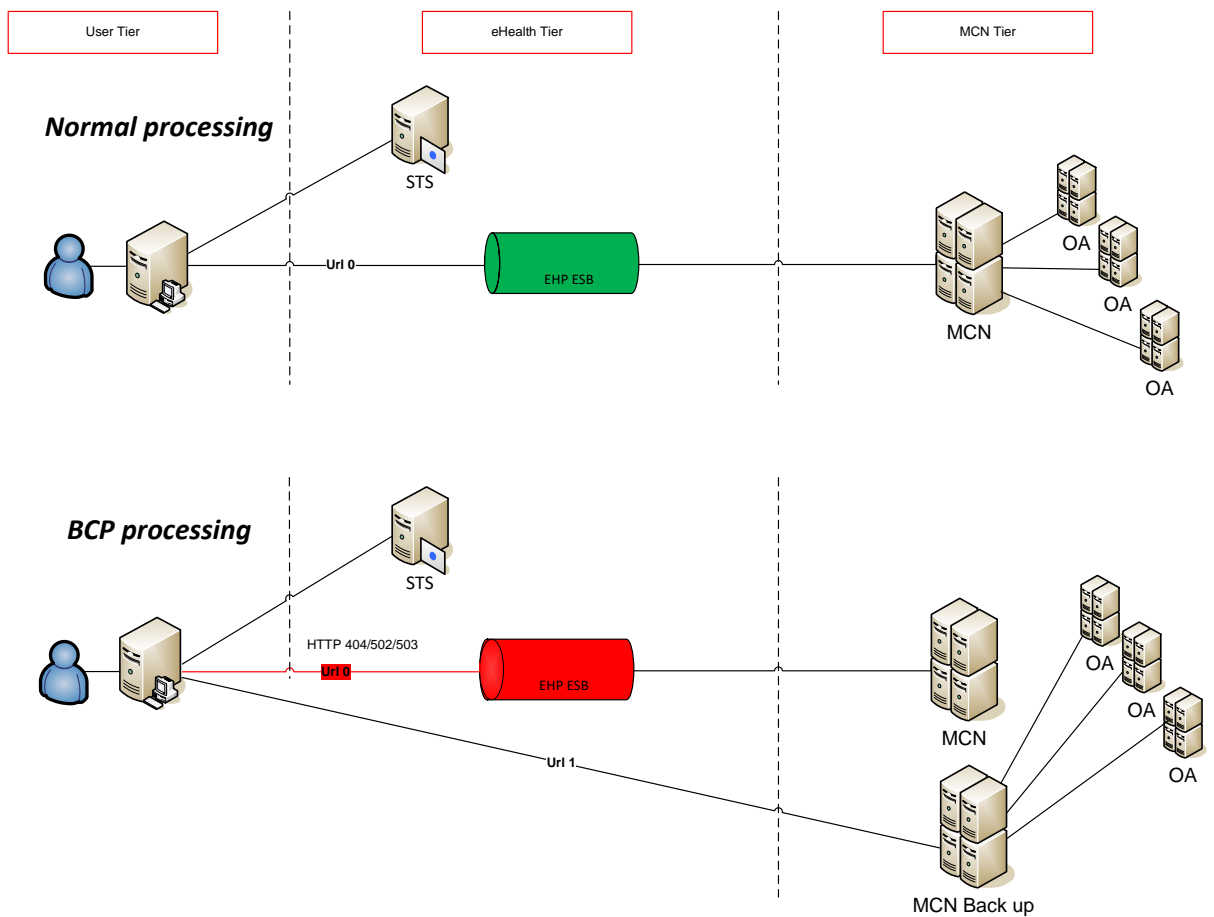**Figure 1**: Normal processing vs BCP processing overview (no cache strategy)

2)   Solution based on cache consultation
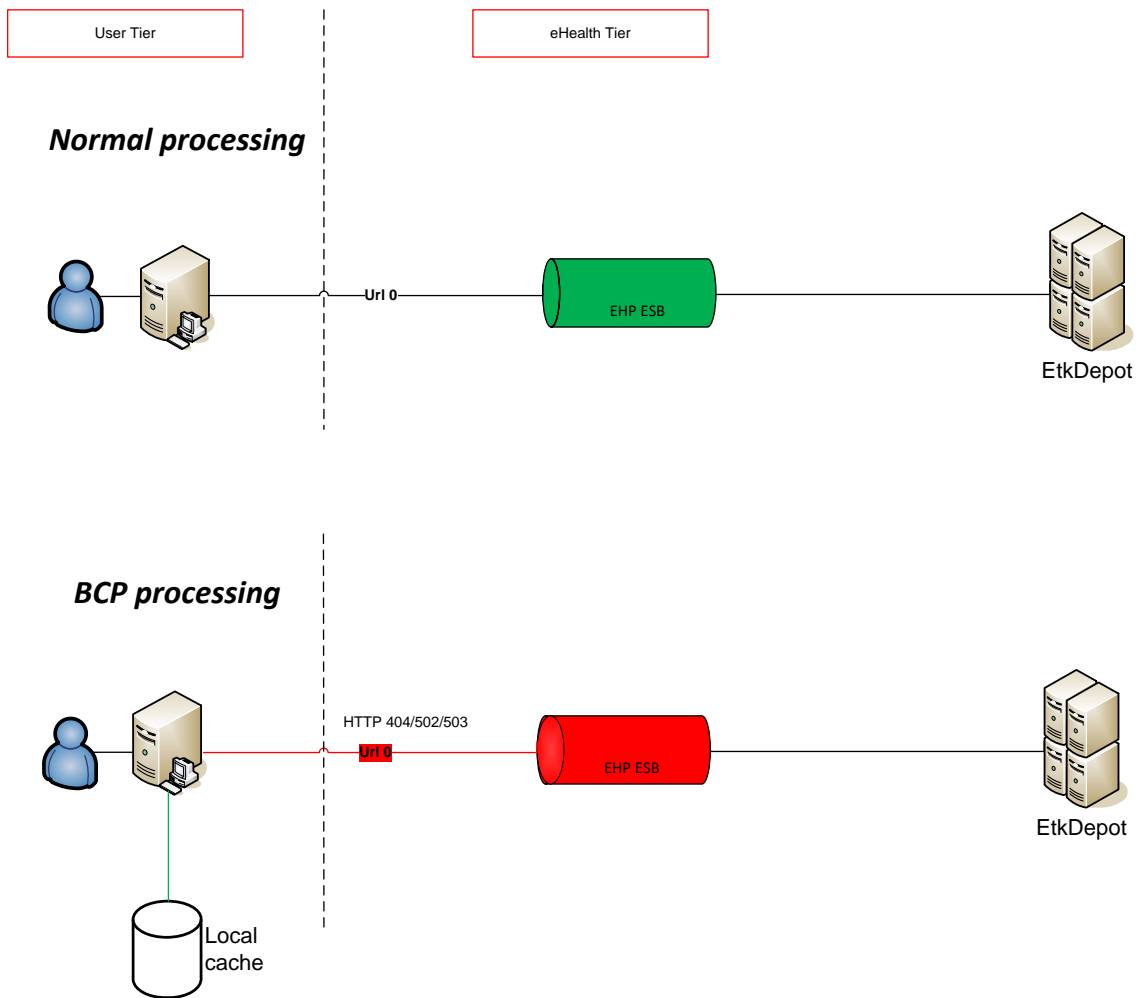

User Tier

eHealth Tier

Normal processing

Url 0

EHP ESB

EtkDepot

BCP processing

HTTP 404/502/503

Url 0

EHP ESB

EtkDepot

Local cache

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

5. Process - Step by Step

<u>Solution based on an url switch</u>

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 8503

2. Once the 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 the errors[4] are encountered whilst invoking the services, the end-user must open the file *F1* to know the proposed recovery endpoints then switch to the next one *by respecting the sequence number* to recover their business.

4. At regular time intervals[5], for example every fifteen (15) minutes, the end-user must download the latest version of the file *F2* and compare it with the previous version. At the end of this operation and only 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 undertake actions accordingly e.g. switch back to the main endpoint that has been restored i.e. ACTIVE.

   Example

```xml
<?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>
    ........
```

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

[5] *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[6] is encountered, the end-user must open the downloaded **F1** to switch to the recovery endpoint by respecting the sequence number. In this case, the recovery end-point is

5. Step **3** and step **4** must be performed if – and only if - the service encounters one the errors described in the paragraph 7.

6. In case of inactivity of all the service's endpoints (main and recovery endpoints), the end-user must follow the usual procedure established by the eHealth platform i.e. the procedure before the existence of the eHealth Business Continuity Plan.
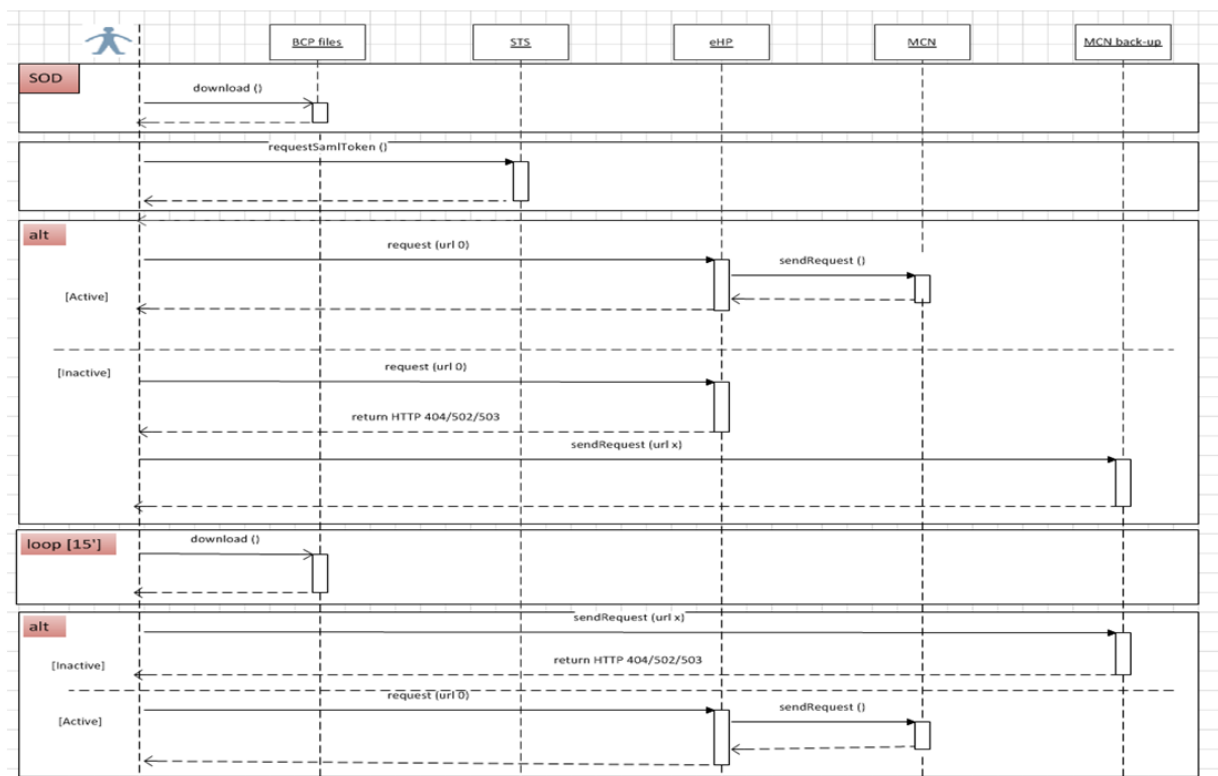

***Figure 2**: BCP sequence diagram*

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[6] *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 8503

2. Once the 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 (by default) the main endpoint of the concerned eHealth service. As soon as an error[7] is encountered, he must consult his local cache by using the key(s) mentioned in the file F1 and by respecting the expiry conditions.

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

    NB: You could find detailed instructions about what must be cached, in the cookbook of the eHealth service that you want to use.

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[7] *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 and unique. This Id is 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
<?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==
```
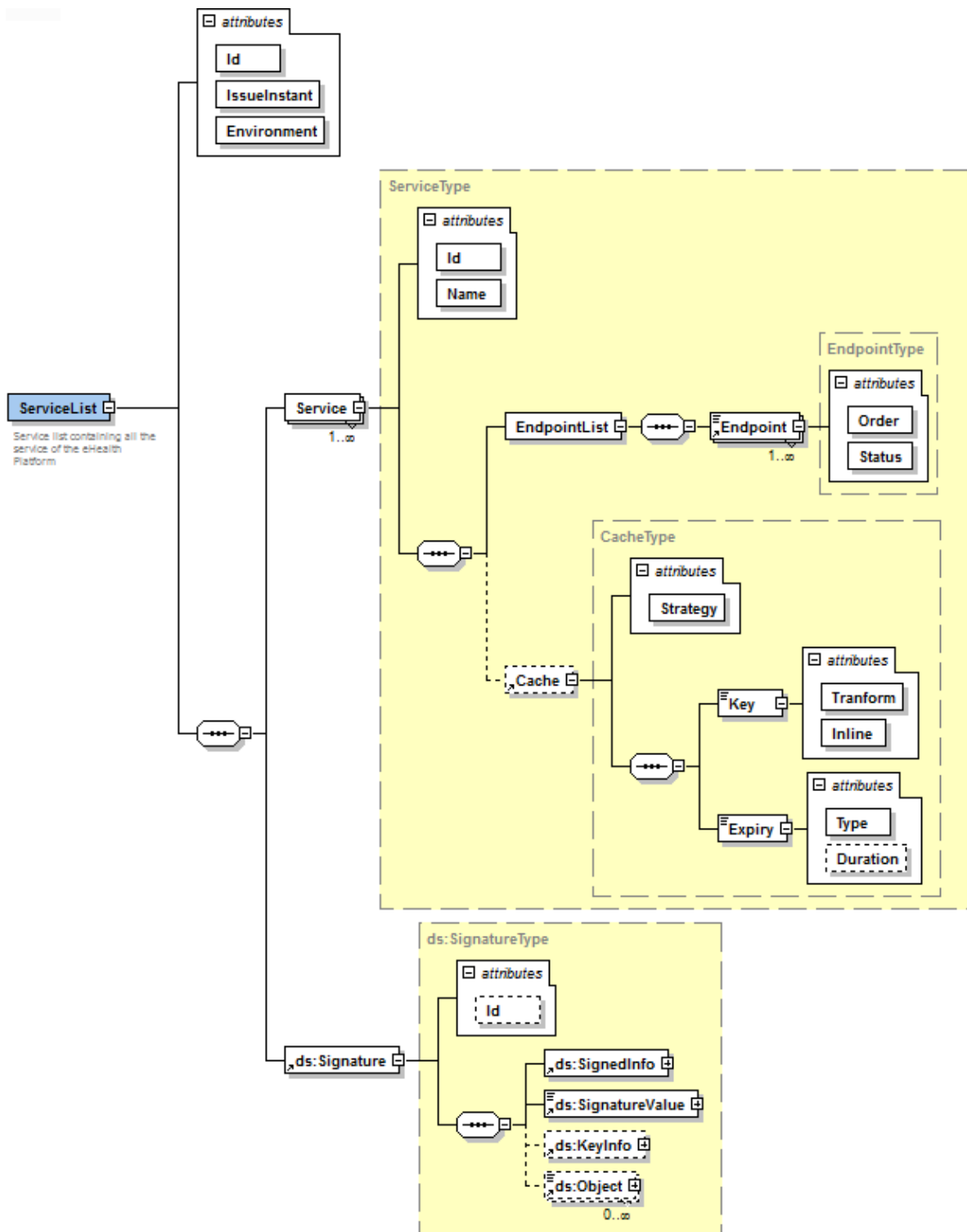
```
</ds:SignatureValue>
                <ds:KeyInfo>
                    <ds:X509Data>
                        <ds:X509Certificate>
MIIFLTCCAxWgAwIBAgIUIklNydfYmsLyaw29...........................................................................................................
...............................................................................................................................................

</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>19574041693718447011244966334438400970196427509</ns2:X509SerialNumber>
                                        </IssuerSerial>
                                    </Cert>
                                </SigningCertificate>
                            </SignedSignatureProperties>
                        </SignedProperties>
                    </QualifyingProperties>
                </ds:Object>
        </ds:Signature>
</v2:ServiceList>
```
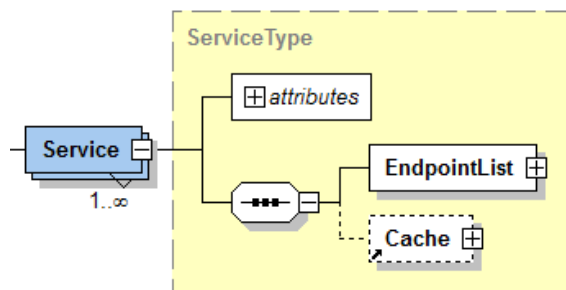
6.2 Element 'Service'

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
<?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>
        ........
```
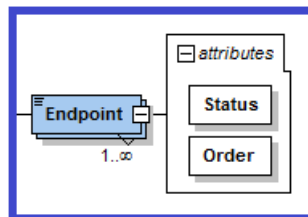
6.3   Element 'Endpoint'

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

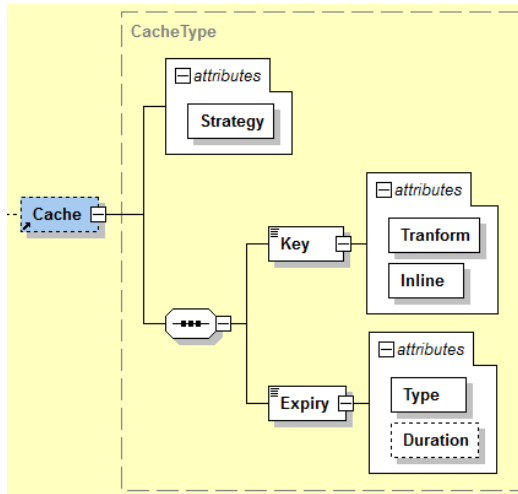<Endpoint Status="INACTIVE" Order="1" >https://services-acpt.ehealth.fgov.be/ServiceExample_01/v1</Endpoint>

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 respect for the service. Currently two values are available: **ENDPOINT_FIRST**: The end user must use (by default) 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 (by default) his local cache. If there is no information in his cache, he must call the concerned eHealth service.	
Key		The key which specifies the unique identifier(s) that the end user must use in order to retrieve the correct cached response	Mandatory.
Expiry		The expiry policy to respect for the cache consultation	Mandatory.

6.4.3 Example

```xml
<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>
```
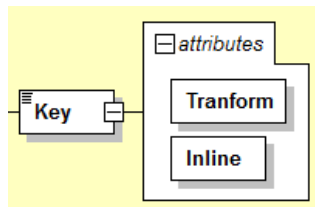
6.5 Element 'Key'

6.5.1 Functional description

Purpose	Specifies the unique identifier(s) that 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
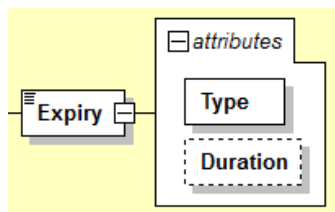
```
<v2:Cache Strategy="ENDPOINT_FIRST">
                    <v2:Key Inline="true" Tranform="xslt"><![CDATA[<xsl:stylesheet version="1.0"
xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
xmlns:etee="urn:be:fgov:ehealth:etkdepot:1_0:protocol"><xsl:output method="text" version="1.0"
encoding="UTF-8" indent="no"/><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 respect 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 available currently: **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.b****e*. 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 service. Most of the required integration info to integrate is published on the eHealth portal.

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

7.1.3 Release procedure

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

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" to the eHealth point of contact by email.

Then the eHealth platform and the partner agree on a release date. eHealth 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-support@ehealth.fgov.be***.

7.1.4 Operational follow-up

Once in production, the partner using the eHealth 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 eHealth 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: investigate the reason of the SOAP Fault by extracting the SOA error code. The error code can be found in the code tag of the System Error details.

```xml
<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/