

**Common Base Registry for HealthCare Actors  
CoBRHA Consultation  
Cookbook  
Version 1.2**

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**eHealth platform**

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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 |
|---------|------------|------------------|----------------------------------|
| 1.0     | 02/05/2011 | eHealth platform | Initial version                  |
| 1.1     | 10/09/2014 | eHealth platform | First revision                   |
| 1.2     | 04/07/2018 | eHealth platform | Update schema in section 5.4     |

## 2. Introduction

### 2.1 Goal of the service

The goal is to consult data from the CoBRHA database that contains information about healthcare actors. The data scope is limited to core data that

- are exchanged between partners (or in other words inter-organisational rather than intra-organisational).
- concern Belgian recognized healthcare actors.

We essentially attempt to answer three questions over a health actor:

Who is he? Healthcare actor identification as an *individual* (physician, dentist, etc.) or as an *organisation* (hospital, pharmacy, nurse group, etc.). It includes attributes such as: identification number (INSS, KBO, INAMI, EHP), address(es), contact information, etc.

What is he allowed to do? Activities realized by healthcare organisations (ex: general hospital, intensive care, SMUR, etc.) or professions, specialities obtained by individuals (cardiologist, radiologist, etc.).

What are his responsibilities? Roles played by healthcare actors (ex: Chief Physician) possibly for another healthcare actor.

This service offers the user the possibility to consult data from CoBRHA database by registration to a snapshot service or by web service.

This service **allows**:

- Define a specific snapshot of the database by contacting the eHealth team: [info@ehealth.fgov.be](mailto:info@ehealth.fgov.be)
- Making a web service call to consult the CoBRHA database synchronously (web service consultation). 3 web service consultation calls are available:
  - Get codification by type (role type, specialty type, hcinstitution type, profession type, profession status, hcassociation type, contact type, nihiiorg status)
  - Get individual by his NISS id or NIHII id.
  - Get HCInstitution by his NIHII id, CBE id, (hco id + hco id type (evd, vaph number)) or approval number

This service **denies**:

- Retrieval of unauthorized data. A filtering is done by removing all data that is not authorized to be seen by the requester (for example: the visa, invalid data).

All consultation requests are tracked in the Follow-Up and Audit service.

This service will provide as **output** an xml file or string with the filtered data from the CoBRHA database or a report with error/warning message(s) describing why the data couldn't be consulted or potential issues (See cookbook xsd CoBRHA for more details).

### 2.2 Goal of the document

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

However, in order to interact in a smooth, homogeneous and risk controlled way with a maximum of partners, these partners must commit to comply with the requirements of specifications, data format and release processes of the eHealth platform as described in this document.



Technical and business requirements must be met in order to allow the integration and validation of the eHealth platform service in the client application.

## 2.3 eHealth platform document references

On the portal of the eHealth platform, you can find all the referenced documents.<sup>1</sup> These versions or any following versions can be used for the eHealth platform service.

| ID | Title  | Version | Date       | Author           |
|----|--|---------|------------|------------------|
| 1  | Glossary   |         |            | eHealth platform |
| 2  | Cookbook STS   | 1.0     | 31/08/2010 | eHealth platform |
| 3  | Call to the eHealth SSO web service to obtain a SAML Token | 1.0     | 21/10/2010 | eHealth platform |
| 4  | Cookbook CoBRHA Publication                                | 3.3     | 04/07/2018 | eHealth platform |

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

## 3. Support

### 3.1 For issues in production

eHealth platform contact center:

- Phone: 02/788 51 55
- 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)

### 3.2 For issues in acceptance

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

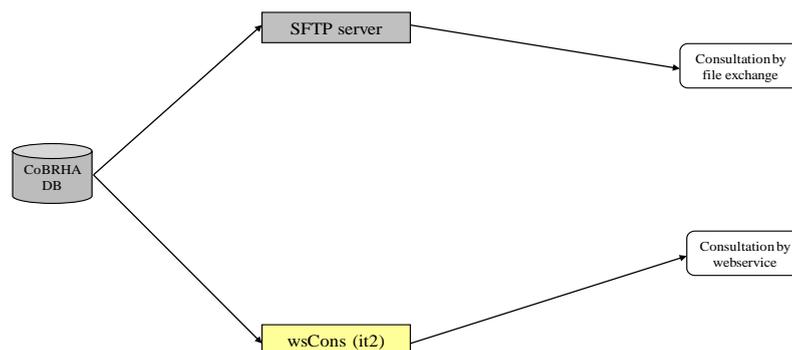
### 3.3 For business issues

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

## 4. Global overview



### Asynchronous Consultation:

The consultation service consists to retrieve a file (snapshot) on a specific folder on the SFTP. In order to define a new snapshot, the partner must contact the eHealth team ([info@ehealth.fgov.be](mailto:info@ehealth.fgov.be)).

### Synchronous Consultation by web service:

You can make a consultation by synchronous web service call. This is done by calling the WSCons.

3 web service consultation calls are available:

- Get Codification by type (role type, specialty type, hcinstitution type, profession type, profession status, hcassosiation type, contact type, nihiiorg status)
- Get individual by his NISS id or NIHII id.
- Get HCIInstitution by his NIHII id, CBE id, (hco id + hco id type (evd, vaph number)) or approval number

## 5. Step-by-step

### 5.1 Global technical requirements

All xml sent to the eHealth platform must be encoded in utf-8.

### 5.2 Technical requirements for file exchange

#### 5.2.1 Creation recurrent snapshot task procedure

You should contact the eHealth platform ([info@ehealth.fgov.be](mailto:info@ehealth.fgov.be)) and ask for a snapshot task. They will activate the service and deliver a username/password for the sftp URL where the snapshot will be delivered. The snapshot file is zipped using 7zip and put in the folder 'Snapshot' and has following filename structure:

**PUBLISHERNAME\_YYYYMMDD\_REQUESTID\_Snapshot\_TYPE\_FILTERNAME\_ENV.zip**

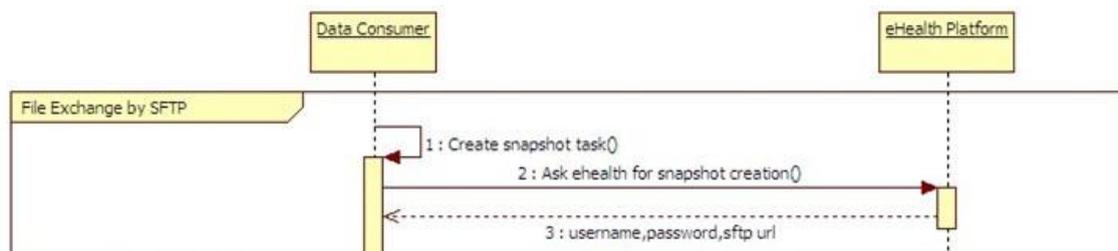
E.g. VAZG\_20140516\_042753\_Snapshot\_vazg\_filterInvalid\_ACC.zip

The snapshot file has following filename structure: Snapshot\_AuthenticSource\_filtername.xml.

E.g. Snapshot\_vazg\_filterInvalid.xml

### 5.3 Process overview for file exchange by SFTP

Overview to consult CoBRHA by file exchange using SFTP:



## 5.4 Process overview for web services

Overview to get a certificate to be able to use the eHealth WS with or without file exchange:



## 5.5 Consultation Output Data (ehealth-cdm.xsd)

See cookbook xsd\_cobrha

## 5.6 RequestReport (ehealth-requestreport.xsd)

See cokbook xsd\_cobrha

## 6. Risks and security

### 6.1 Risks & safety

### 6.2 Security

#### 6.2.1 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. This will ensure an effective capacity management.

In case of technical issues on the WS, the partner may obtain support from the contact center (see Chap 3)

**In case the eHealth platform finds a bug or vulnerability in its software, we advise the partner to update his application with the newest version of the software within 10 business days.**

**In case the partner finds a bug or vulnerability in the software or web service that the eHealth platform delivered, he is obliged to contact and inform us immediately. He is not allowed to publish this bug or vulnerability in any case.**

#### 6.2.2 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.
- Signature of the timestamp, body and binary security token. 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.

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

The username, password and token are strictly personal. Partners and clients are not allowed to transfer them. Every user takes care of his username, password and token and he is forced to confidentiality of it. Moreover, every user is responsible of every use, which includes 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 the eHealth platform service, 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 to integrate is published on the portal of the eHealth platform.

Upon request, the eHealth platform provides you in some cases, with a mock-up service or test cases in order for you to test your client before releasing it in the acceptance environment.

### 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 the 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 his point of contact at the eHealth platform.

Then the 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-support@ehealth.fgov.be](mailto: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 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 Procedure for web services

### 7.2.1 Initiation

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

### 7.2.2 Development and test procedure

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

In some cases eHealth provides you with a mock-up service or test cases in order for you to test your client before releasing it in the acceptance environment.

### 7.2.3 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 eHealth 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 eHealth with feedback on the test and performance tests.

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

#### **7.2.4 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.

#### **7.2.5 Test cases**

The eHealth platform recommends performing tests for all of the following cases:

- Web service call to get HCInstitution by his NIHII id, CBE id, (hco id + hco type (evd, vaph number)) or approval number
- Web service call to get HCAssociation by his NIHII id, CBE id or EHP id.
- Web service call to get individual by his NISS id or NIHII id.
- Web service call to consult CoBRHA DB by generic filter xml.

In addition, the organization should also run negative test cases:

- Web service call with missing or wrong id.
- Web service call to consult CoBRHA DB by a wrong structured generic filter xml



## 8. Error and failure messages

Status codes originating from the eHealth platform for the request, operation and action (part of operation): These status codes are linked to the consultation request, operation or a single action of the operation.

- Status codes with severity 'notice' do not block anything.
- Status codes with severity 'warning' linked to an action blocks the execution of the action, but not the operation or request.
- A status code with severity 'error' linked to an operation blocks the execution of the operation, but not the execution of the request.
- A status code with severity 'error' linked to the request blocks the execution of the request.
- A status code with severity 'critical' blocks everything immediately.

The input xml of the operation is present in the report for all status codes with severity 'error' and 'critical' linked to the operation. The xml linked to the action is present in the report for all status codes linked to the action with severity 'warning'.

We can decide to filter out the warning statuses from the report for performance reasons.

| Status code | Severity | Level   | Description   | Solution   |
|-------------|----------|---------|---|--|
| CRE         | notice   | request | "created": A new request has entered the system, but is not ready to be treated.  | NA   |
| PEN         | notice   | request | "pending": The request is ready to be treated.  | NA   |
| EXE         | notice   | request | "executing": The request is in treatment.   | NA   |
| FIN         | notice   | request | "finished": The request is completely executed.   | NA   |
| FIW         | warning  | request | "finished with warning/s": The request is completely executed but warnings have occurred during the execution.  | Check the issue list of the report for more info about the warnings.                     |
| FIE         | error    | request | "finished with error/s": The request is completely executed but errors have occurred during the execution. It is possible that also warnings raised during the execution. | Check the issue list of the report for more info about the errors.                       |
| FAT         | error    | request | "failed technically": A technical problem has occurred that stopped the execution of the request. The request will be retreated when the technical problem is solved.     | The eHealth platform has a technical issue and will try to solve it as soon as possible. |
| TOF         | error    | request | "too many operations failure": If the filter linked to the generic synchronous web service doesn't isolate less than 50 root elements an error is raised.                 | Check the issue list of the report for more info about the errors.                       |

|     |         |           |  |   |
|-----|---------|-----------|--|---|
| MIN | error   | request   | "missing input": Not enough input data available to create new consultation request.   | Do not forget to put all input needed to make a correct consultation call zip file as explained in section 5.8.   |
| XCU | error   | request   | "xml corrupted": Corrupted xml. The filter xml in the request doesn't follow the xsd schema explained above.   | Restructure your publication request xml according to the ehealth-cdm.xsd.  |
| ZCU | error   | request   | "zip file corrupted": Uncompressing the zip file failed.   | The zip file has not been compressed in one of the following formats:<br>rar – 7z – gzip – zip  |
| FNI | error   | request   | 'file package integrity failed': The filter xml filename contained in the zip file has no valid filename structure or the zip file has no valid filename structure | Filename structures:<br>PUBLISHERNAME_ID_filter.xml<br>PUBLISHERNAME_ID_filter.zip<br>PUBLISHER_NAME: example<br>WVG_VAZG, FPS_PH<br>ID: unique identification number                 |
| ZNA | error   | request   | "zip file not available": The zip-file is not available on our file system.  | Try to publish the zip file again. If it does not work at the second attempt, contact the eHealth team (info@ehealth.fgov.be).  |
| ONP | warning | operation | "operation not permitted": All actions inside the operation were not permitted.  | Filter the operation from future publication request. If you should be able to publish this data, contact the eHealth team to ask for access (info@ehealth.fgov.be).                  |
| OEW | warning | operation | "Operation executed with warnings": The operation has been executed but some warnings occurred linked to the action inside the operation.                          | Check the warning list of the operation and read the solutions linked to the warning statuses   |
| OND | error   | operation | "operation not executed because of wrong data type": Query extracted from an action of the operation gave a wrong data type error.                                 | A value inside the operation is in the wrong type. For more details read the explanation of the ehealth-cdm.xsd for filtering inside this cookbook (section 5.6.1 and section 5.7.4). |
| ANP | error   | operation | "Action not permitted": the furnisher is not authorized to publish this action.  | Filter this action from future publication request. If you should be able to publish this data, contact the eHealth team to ask for access (info@ehealth.fgov.be).                    |